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# Federal Government Procurement — An Uncharted Course Through Turbulent Waters

*C. M. Culver*



National Contract Management Association

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**National Contract Management Association**  
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## Foreword

In May 1984 NCMA celebrated its 25th Anniversary. As part of that celebration, C. M. "Chuck" Culver agreed to write an overview of the American federal government procurement process. Each chapter of the volume originally appeared as an article in alternating issues of *Contract Management* magazine which is published monthly by the National Contract Management Association.

Writing this history turned out to be an enormous task, but also a labor of love for Culver who has been involved with government contracts for more than 30 years. The result of his effort is a fitting tribute to NCMA's dedication to the profession of contract management.

James L. Neal  
NCMA National President  
1985-86

## The National Mission of NCMA

The National Contract Management Association is composed of more than 17,000 individuals engaged in the field of public and commercial contracting through companies, government agencies, or related fields of endeavor who are dedicated to excellence and high standards of professionalism. Through speakers at the monthly meetings of its 106 chapters, NCMA members enjoy interchange with outstanding and knowledgeable people representing diverse sectors of the procurement community.

A growing and comprehensive library of NCMA educational training material and a NCMA-developed uniform Code of Ethics give members encouragement and direct guidance to expand their professional development. A certification program leading to the prestigious Certified Professional Contracts Manager (CPCM) designation is an integral part of NCMA's mission. National, regional, and local conferences plus subscriptions to the monthly publication *Contract Management* magazine and the semi-annual *National Contract Management Journal* provide a broad forum for the interchange of ideas. For membership information, write to: NCMA, 6728 Old McLean Village Drive, McLean, VA 22101.

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**Cover Photo:** On February 28, 1908, the Army Department's Signal Corps entered into a contract with the Wright Brothers of Dayton, Ohio, to acquire a "flying machine." Pictured here are Orville Wright and Lt. Thomas O. Selfridge in the airplane which was delivered six months later.

## Author's Note

What I have covered in this series could be described as the tip of the iceberg of federal government procurement history — the highlights as I have perceived them. I quickly learned that other events had an impact on the process — world and domestic events, conflicts, developing technologies. I tried to balance coverage between the defense acquisition community and the civilian acquisition community. I tried not to color this history with my own views — but I feel it is appropriate to express them now.

I am concerned that our Congress cannot get appropriations in place at the start of the year. This amounts to fiscal irresponsibility. Congress' reliance on continuing resolution authority (CRA) only perturbs the contracting process, particularly where annual contracts are in place. We changed the federal fiscal year in 1976 to allow Congress an additional 90 days to contemplate the budget and enact appropriations. Only once in the intervening years have we had a budget in place on October 1. This burdens the system by requiring innumerable documents merely to fund contracts up to a date established by the CRA.

It also requires many contractors to continue "at risk" since they do not have the flexibility to either yo-yo a work force of skilled scientists and engineers and production people or enjoy the luxury of suddenly switching to nongovernment business endeavors. There is the concern of meeting schedules, particularly when national security issues are at stake. I empathize with contracting officers who are held responsible to critical schedules but are constrained by the provisions of the Anti-Deficiency Act and a horrendous contract review schedule process before making awards.

I am concerned about responsiveness of the system in event of a national emergency. In World War II, following Pearl Harbor, the then highly structured system was all but undone and authority immediately delegated to the field by the first War Powers Act. The act was signed just 11 days after Pearl Harbor and achieving it in that short a time was considered to be almost a miracle. We then had the protection of two oceans which also gave us time. What do we do in the future when we measure the flight of an intercontinental ballistic missile (ICBM) carrying nuclear warheads in minutes?

I am concerned that our professional credibility is under fire by the media and the American public and that the government contractors are looked upon as fat cats ripping off the taxpayers with the possible collusion of government personnel. There are undoubtedly isolated cases and also circumstances where explanations would be difficult to comprehend, but the message of the integrity of 99 percent of the acquisition process is not getting out. I suggest we all relook at Standard Number 4 in NCMA's Code of Ethics. It reads "Each member of NCMA shall conduct oneself in such a manner as to bring credit upon the Association, as well as to maintain trust and confidence in the acquisition process."

Finally, I wish to thank the many who have helped to make this series possible: those who looked up an item or furnished a copy of it and those who patiently listened as I read to them to get a view of how it sounded and whether it "flowed." And last, but not least, to NCMA Executive Director Kathy Linse and to NCMA Editors Terry Hoskins and Deb Choi whose assistance produced a readable and, I hope, interesting series.

C. M. Culver  
San Fernando Valley Chapter  
June 1985

## Colonial Times to World War I

### Government Contract Law, Sole Source, and Defense Contracting in Colonial Times

Most U.S. citizens would answer, if asked, that American History began in 1776. However, since the *U.S. Constitution* has its foundation in English Common Law, the origins of American History may trace back to the signing of the Magna Charta by King John at Runnymede in 1215. In signing this document (which historians refer to as "feudal law"), he agreed, among other things, to the establishment of law courts, to prompt justice, to no new or extraordinary taxes without consent, to weight and measurement standards (our first specifications?), and to the charter rights of towns. This, perhaps, marks the beginning of government contract law. And because applicable laws are derived from both the common law of contracts and government law, government procurement is unique.

Mankind has always attempted to regulate, by custom or law, its procedures for transacting business, whether personal, in the marketplace, or with the sovereign. At the time of the American Revolution, for example, Great Britain was operating by "The Mercantile Theory of Colonial Regulation." Under this very restrictive system, England had enacted three kinds of laws which Colonial America found oppressive: 1) the Navigation Acts, which protected England against foreign competitors, including our then budding New England shipping industry; 2) the Acts of Trade, which gave English merchants a monopoly of the colonial markets; and 3) those acts which gave English manufacturers a monopoly in those markets. In effect, English merchants and manufacturers had been lawfully edicted to be sole or single sources of supply to the Colonies.

Acts such as the Stamp Act of 1765 were designed to reduce the influence of colonial assemblies upon governors appointed by the crown, to enforce the trade laws, and to raise money for the defense of the Colonies. Ultimately, the colonists brought about the repeal of

the Stamp Act in 1776, but in its place the English Parliament passed the similarly repressive Townshend Acts.

Eventually all provisions were repealed except the tax on tea, but in protest the First Continental Congress met in Philadelphia in October 1774 and issued a second Declaration of Rights which addressed many of the same concerns expressed nine years earlier by the Stamp Act Congress in its Declaration of Rights. Two new provisions to the Declaration are significant to the development of the procurement process: 1) that the keeping of a standing army for defense in times of peace required consent of the legislature (of the colony) and 2) the necessity for maintaining the independence of the various branches of government (referring to those governments elected in the colonies). That declaration also set forth the principle for entering into an agreement with England regarding nonimportation, nonconsumption, and nonexportation of commodities or manufactures.

### Doing Business with the Government in Revolutionary Times

The Revolutionary War period hallmarks a curious sequence of events that determined the course of federal procurement.

- In June 1775 after the battles of Lexington and Concord, the Second Continental Congress took control of the Army and appointed a Commissary-General to acquire supplies. Doing business with the private sector at that time was difficult at best since government-issued Continental Currency was worth only one cent on the dollar.

- The Continental Congress in 1775 authorized two Marine battalions. Six months following the Declaration of Independence (January 1777), General Washington, distressed at the lack of interest by private enterprise, ordered the establishment of a cannon casting facility in York, Pennsylvania, and later that year another arsenal at Springfield, Massachusetts, the precursor to the

development of the arsenal system. The Navy, which first fought in 1775, was dissolved after the Revolution and was not recreated until 1798.

- A "Board of War" to contract for supplies was created, followed by an act of Congress on March 2, 1778, appointing a permanent Quartermaster General. To discourage embezzlement in what perhaps was our first experience with "fraud, waste, and abuse," Congress provided that the commissaries would retain two percent of the monies disbursed by the purchasing commissaries and that salaries would be at \$100 per month with six daily rations.

This move by Congress was intended to stabilize the purchasing organization. Further, at Thomas Jefferson's behest the incumbents were bonded. Note, however, that it was not until 1808 that an "Officials Not to Benefit" law was passed because of alleged activities of congressmen in securing government contracts for friends and firms with which they were associated. The inclusion of this provision is still mandated in government contracts today.

- The Land Grant resolution passed in 1780 was the precursor of our present grants system. Initially, it dealt with the granting of lands for specific uses; now it deals also with the award of funds for specific educational and research purposes. The U.S. Government today funds about 50 percent of the R&D in this country, the bulk of which is done to meet defense needs.

- According to the most recent Commission on Government Procurement (COGP, 1969-1973), the private sector contracted with the Continental Congress for rations to feed the army during the latter part of the American Revolution. Financier Robert Morris, who made the arrangements, was subsequently appointed to the Office of Superintendent of Finance in 1781. That office, though part of the executive branch, was the forerunner of our present General Accounting Office and although we know that disputes were settled by arbitration, the selection method and qualifications for arbitrators is not clear.
- Articles VI through IX in the *Articles*

of Confederation relate to government procurement because they provided how the Confederation would respond to war and how the costs thereof would be allocated. However, many deemed the *Articles* unworkable and a new set of articles — the *Constitution* — was proposed. One significant difference that had a bearing on the course of federal procurement was that the *Constitution* supported a stronger central federal government than did the *Articles*.

#### How the U.S. Constitution Shaped the Course of Procurement

In May 1790 Rhode Island became the 13th and last state to ratify the *Constitution*; the Bill of Rights was ratified in December 1791. Some historians have said that the *Constitution* contains no provisions specifically addressed to procurement. However, with respect to government contract law, the *Constitution* provided 1) for the origination of appropriations within the House of Representatives, 2) for the right to levy taxes and pay the debts, 3) for the common defense and general welfare, 4) for accountability and related features concerning property, and 5) for a ban on money being drawn except for appropriations (we now deal with the Anti-Deficiency Act).

Particularly significant to our emerging federal procurement process, the newly-ordained *Constitution* also provided for a Supreme Court and “such inferior Courts as the Congress may from time to time ordain and establish.” Over the years the judicial system has had a tremendous impact on the federal government procurement process through its decisions and by the positions and reasons articulated in its written opinions. Of significance, too, is the subsequent Supreme Court ruling that the executive branch had the implied power to enter into contracts because it was inherent in the concept of sovereignty.

In the deliberations of the First Congress in 1789, several precedents were established that have a bearing on present-day procurement. In debating the “Independence of the Executive” issue during the development of the act which created the Treasury Department, for example, the Congress determined that executive branch officials would

“serve at the pleasure of the President.”

The Congress also established the bases for government procurement when it created the executive departments of Foreign Affairs (later State), War, Treasury, and the Post Office and appropriated monies for these departments to acquire lighthouses and other facilities. Interestingly, while we had an Attorney General in 1789, the Department of Justice was not created until 1870, some 81 years later.

The Treasury Department played an important role in the legislative history of federal procurement. In May 1792 the Second Congress passed the first law regulating federal procurement. The law provided that the Treasury Department make all purchases for the Army — a part of the War Department — and in 1795 the Office of Purveyor of Public Supplies was established to act as the government’s purchasing agent. Alexander Hamilton, the first Treasury Secretary, is generally credited with being the innovator of centralized federal procurement.

In 1798 Congress required that all outstanding contracts be “deposited” in the Treasury Department, “a function to be inherited many decades later by the GAO,” notes the COGP Appendix. Also in that year the first Navy Secretary was appointed and in 1798 and 1799 some of the Treasury’s procurement functions were transferred to the War and Navy Departments. The Treasury Purveyor, however, was still responsible for placing orders and for accountability. The Navy was subsequently to be “up front” during the Tripolitan War in 1801.

Other relevant events occurred during this era. In March 1809 a congressional act established a general requirement for formal advertising — “by open purchase or by previously advertising for proposals . . .” — for the procurement of supplies and services. Then, during the course of the War of 1812, the purchasing authority of the Quartermaster General’s Office of the Army Department was broadened, and the various federal agencies gradually began to adopt procedures to procure their own supplies and to fund them through their own budgets and appropriations. The year 1817 is significant, too, because the Office of the Comptroller of the Treasury (originally established in 1789) was subdivided into a First Com-

troller and a Second Comptroller, a total of six auditors later replaced the single Auditor. This division of responsibilities, which gave comptrollers accountability authority and auditors settlement authority, lasted until passage of the Dockery Act in 1894.

#### Advertising Laws Issued During Civil War Era

No major procurement legislation was enacted before the Civil War; however, several matters emerged in that era that are manifested in today’s procurement process.

Between 1809 and 1841 a number of exemptions were passed to the act mentioned earlier requiring formal advertising. Then in 1842 a law requiring advertising, sealed bids, public bid openings, and default security on printing was passed. The 1842 law was predicated in part on the fact that printing had become a political plum and by the many contract excesses and scandals. The Government Printing Office was not established until 1860 even though the Joint Committee on Printing had existed since 1846.

An 1843 law requiring the publishing of abstracts of bids was followed in 1852 by a law requiring advertising for 60 days before the opening of public bids. Then in 1860 Senator Jefferson Davis was instrumental in gaining the passage of an advertising law that required advertising for purchases except for matters of “public exigency.” Except for the Spanish American War, the Filipino Insurgency, and World Wars I and II, when it was waived or rescinded, the so-called “advertising law of 1860” would apply for the military departments, the Coast Guard, and NASA (formerly NACA) until 1948, for the General Services Administration and for delegated agencies until 1949, and for the other executive agencies until 1965.

This takes us to March 1861 when the Civil Sundry Appropriations Act — the basic law under which the Civil War was fought — was passed. Predictably, problems arose concerning the use of both formal advertising procedures and the exceptions; allegations of profiteering were decried. Scandals in both the North and South led to administrative shake-ups in the North. The act, revised

and amended, became known as Revised Statute 3709.

The Civil War is most notable with respect to government contracts for its financing problems. Irredeemable paper money was issued for the first time, a national banking system was created, and high protective tariffs were established.

In addition to charges of profiteering, other problems involving government procurement arose. Specification difficulties, for example, surfaced because of the demand for more complex weapons such as the Sharp’s Rifle, the Parrot Cannon, Union Army observation balloons (aeronautics were established as a branch of the military during the Civil War), and the Navy’s ironclad, cannon in a turret — the *Monitor*, which was used in the indecisive battle at Hampton Roads against the former wooden frigate, “Merrimac,” plated with iron and renamed the “Virginia” by the Confederacy. In addition, our nation’s economy was rapidly shifting from agricultural to industrial; this, too, would ultimately prove to have an impact upon government contracting.

#### The Role of Congress in Pre-World War I

The Dockery Commission, established in 1893, conducted studies of the government, including one on procurement. A joint Senate and House Commission, which many regard as the prototype for the Hoover Commission and later the COGP, found 1) no attempt to standardize specifications or quantities, 2) unstable prices, and 3) duplication of functions. Though that study was concluded 91 years ago, it still elicits a familiar ring.

Now this brings us back to Revised Statute 3709 mentioned earlier. Based on its findings, the commission recommended amendment of the statute to provide for the creation of a Board of Awards, consisting of representatives from the Departments of the Treasury, Interior, and Post Office, to review all agency purchase proposals. Curiously for us today, the War Department, the Army, and the Navy were not represented on the board.

As an advisory body only, the Board of Awards was largely powerless to deal with the problems the commission had

identified; nevertheless, Congress in 1894 revised the law (known as the Dockery Act) to establish the board. Provisions in the Dockery Act also called for the reconsolidation of comptroller-ship activities into a single Comptroller of the Treasury and specified in detail the functions of government auditors. This last arrangement was to stand until passage of the Budget and Accounting Act of 1921 which created the General Accounting Office as an arm of the legislative branch and removed the function from the executive branch.

As we approach the 20th century, two questions arise that are applicable still to modern-day federal government procurement: Has the U.S. Government ever tried to regulate prices? and Is the current “war on costs” something new? The answer to the first question is *yes* and to the second, *no*.

In 1897, disturbed by the high prices that the Navy was paying for armor plate, Congress passed a statute setting the price at \$300 a ton. However the idea didn’t work simply because the manufacturers and suppliers refused to do business with the Navy. As a consequence, Congress was forced to abandon the effort. The COGP Appendix notes that some 1,600 years earlier the Emperor Diocletian, by edict, had fixed the price of military boots for his Roman legions at 100 denarii per pair. That didn’t work either for the same reason.

The acquisition and cost of spare parts was a problem even in 1905 when President Theodore Roosevelt, who was deeply interested in the Navy, appointed the Keep Commission to conduct a study of deficiencies in the procurement system. Particular emphasis was accorded to standardization and the widely differing prices for similar articles. It’s possible he was even then thinking about the around-the-world cruise of the “Great White Fleet,” a demonstration of U.S. naval power which occurred in 1907-1908.

The commission, headed by the Assistant Secretary of the Treasury, recommended the establishment of a General Supply Committee to assure the coordination of procurement and the standardization of supplies. This was accomplished in 1908 when the Board of Awards created by the Dockery Act appointed a committee of 23 members from the various executive departments and agencies to create a “General

Schedule of Supplies.”

As a logical consequence, President Taft in 1909 directed under E.O. 1071 that all supplies identified in the General Schedule be purchased under contracts issued by the General Supply Committee. Congress followed in 1910 by giving the committee statutory authority. What we now know as the General Services Administration was not established until 1949, but the General Supply Committee is surely somewhere in GSA’s lineage.

The 1910 law, an amendment to Revised Statute 3709, also required that procurements be advertised by the Secretary of the Treasury. The advertising function is now performed under the auspices of the Commerce Department (created in 1903) which has editorial responsibility for the *Commerce Business Daily*.

A discussion of this era must include one of the most significant events in government contract history. On February 28, 1908, the Signal Corps of the Army Department entered into a \$25,000 contract with the Wright Brothers of Dayton, Ohio, to acquire a “flying machine.” At the time, the War Department was cool to the military potential of the airplane because of Professor Samuel Pierpoint Langley’s earlier unsuccessful attempts (1896-1903), which had also been financed under a contract from the War Department.

The Wright contract is important because 1) the machine had to perform to the Corps’ Specification #486, issued December 23, 1907, 2) it provided incentives for exceeding specifications up to a maximum and disincentives for falling below specifications to a minimum (under which the contractor would not be paid anything), and 3) it provided for a mandatory delivery date of August 28, 1908. Considered by some to be the first “incentive” contract, all of the risk was on the contractor. President Roosevelt unearthed a special, ten-year-old \$25,000 “carte blanche” presidential fund to enable the Army to contract for this first operational military airplane.

The specifications for air speed, safe descent, take-off, and disassembly in the contract are fascinating contrasted with those for modern-day aircraft. Quite possibly this was our first “fly before you buy” contract. I have found nothing in the literature to indicate that there were other competitors for

the contract.

Other provisions in the contract required the contractor to present a Performance Bond for 100 percent of his bid price and that payment would be made only upon satisfactory demonstration to the Signal Corps (first

article inspection?). The Wright brothers were successful, so, of course, we will never know how a dispute under the contract would have been handled or adjudicated.

We cannot leave this era without noting that it marks the first use of the

government contract as a vehicle for solving socioeconomic problems. Congress in 1887 had already placed restrictions on the use of federal convict labor by contractors; restricted hours of work — the eight-hour laws — were adopted in 1892 and amended in 1912.

### The Legacy of World War I

The events leading to U.S. military involvement in World War I deserve brief mention in tracing the course of federal government procurement.

World War I — the “war to end all wars” — erupted in Europe in July 1914, one month following the assassination of the heir-apparent to the Austro-Hungarian Empire Archduke Francis Ferdinand and his wife. At the time Woodrow Wilson, the 27th president of the United States, had been in office only a little more than a year. World War I, along with a number of other events early in Wilson’s tenure, directly and indirectly affected federal procurement. Those events involved revenue, banking, and the conduct and make-up of the business sector upon which the procurement process relied for the development and delivery of services and supplies.

Just one month before Wilson’s inauguration Congress ratified the 16th Amendment to the Constitution which gave the federal government the power to levy and collect taxes on incomes from whatever source derived. The income tax — the primary source of federal revenues for contracting purposes — and its stormy history date back to the Civil War.

Significant legislation written during Wilson’s term of office were the Federal Reserve Act (1913), the establishment of the Federal Trade Commission (1914), and the Clayton Anti-Trust Act (1914), which was considered to be an improvement and clarification to the Sherman Anti-Trust Act of 1890.

The completion of the Panama Canal in 1914 not only would influence future Navy strategy and requirements but also the entire subject of logistics when we were to engage 27 years later in a war fought on both the Atlantic and Pacific Oceans.

The U.S. Navy would emerge from World War I as the strongest naval force in the world, not surprising since it had been in the process of preparation since

## World War I to World War II

first using armor plate in the Civil War (the *Monitor*), later at Manila Bay (Dewey) during the Spanish American War, and with the “Great White Fleet.” Recognizing the need for a strong Navy, Congress appropriated funds to construct five battleships, eleven cruisers, twenty-one destroyers, forty submarines, and three escort vessels during the three years of 1915-1917 and later to arm the merchant marine with guns to repel German U-Boat attacks.

Germany with its “U-Boats” was waging unrestricted submarine warfare primarily in the North Atlantic against shipping which was keeping England and France supplied with critical materials. Despite the sinking of several U.S. ships, the United States attempted to maintain a policy of neutrality while negotiating with both Germany and the Allies to conclude the war.

However, the sinking of the liner *Lusitania* by a German U-Boat on May 7, 1915, all but sealed U.S. military involvement. Following more sinkings, diplomatic relations with Germany were severed. Then a secret communique was decoded that indicated Germany planned to incite Mexico to action against the United States, and so on April 6, 1917, the U.S. entered World War I.

Ultimately, the war was to involve two million U.S. citizens in uniform and the expenditure of approximately \$35 billion before an armistice was signed on November 11, 1918.

How did the events of WWI affect the procurement process as it is practiced today?

When the U.S. entered the war, procurement was still being conducted under Revised Statute 3709, the Civil Sundry Appropriations Act of the Civil War, as amended in 1910. This act required competitive bidding and advertising of procurement. Nine exceptions were identified for formal advertisement. Among them were purchases for a public emergency (public exigency); purchases of less than \$500 (negotiated purchases of more than \$100 required

approval of the Secretary of War); purchases from federal prison industries; horses, mules, and other proprietary items; medical supplies, classified items, bunting; and dies and gauges. The General Supply Committee, operating under the authority of the Treasury Department, continued to issue its General Schedule of Supplies and to enter into indefinite quantity term contracts.

The War Industries Board, which was established on July 28, 1917, had responsibility for war materials, priorities, labor, and prices. Procedures and regulations were eliminated or relaxed as the United States geared up to fulfill its partnership role with the Allies. Cost-type contracts were heavily used, including cost-plus-a-percentage-of-cost (CPPC); many contracts were exempted from formal advertisement because of “public exigency.”

At the time there seemed to be good reasons for relaxing the rules — or so it was thought: prices were unstable, needed supplies were unavailable in the open market, and the duration of the emergency was undeterminable. Many contracts were let on a CPPC basis without advertising and for delivery of unspecified quantities at unspecified prices on unspecified dates and for costs to be determined at a later date. The War Industries Board was also contending with new technologies — gas masks, tanks, rapid-fire weapons, artillery with longer-range, greater-precision, more-destructive payloads. And, of course, there were the airplanes.

The value of airplanes as bombers, bomber escorts, scouts, or fighters had already been proven by the European belligerents. U.S. air capability, however, was considered extremely weak, and after many meetings with the Aircraft Production Board, Congress appropriated \$675 million in July 1917 for the construction of 22,500 airplanes, expansion of air personnel to 97,000, the establishment of new training fields, and development of the “Liberty Engine.” The largest appropriation up to

that time for a single purpose, it involved — between prime contractors and subcontractors — almost every branch of the nation's industry.

The government contractor did not escape criticism during this era of national upheaval and expanding military technology. It took almost six months from the declaration of war to conscript and to train an army, a fact which General Pershing attributed in large measure to the delays in the building of cantonments (forts) and the furnishing of actual weaponry. We would hear similar allegations regarding readiness in World War II.

WWI procurement was not without its "fraud, waste, and abuse" scandals and accusations of profiteering and influence peddling. The result — Congress enacted an "Excess Profits Tax" Act in 1917, which, incidentally, proved ineffective. President Wilson also issued a directive against the use of contingent fees which was subsequently enacted by statute and regulations and which we now call "Covenant Against Contingent Fees." We certify to this today in our proposals to federal government departments and agencies.

Along these same lines, President Wilson issued Executive Order 2868 on May 28, 1918, which established the War Industries Board as a separate agency (it was dissolved at the end of the war). Subsequently, the use of the CPPC contract was prohibited on the basis that it not only gave the contractor no incentive to contain costs but rather the contractor would likely increase costs to earn larger profits.

During the war many firms had started production without formal contracts; in other instances, supposedly valid contract documents were found to contain "technical" defects. Recognizing that bona fide circumstances existed which required "equitable relief," Congress passed the Dent Act, 40 Stat 1272, which is in the history of what we now call Public Law 85-804, "Extraordinary Contractual Relief," and which has been included in our procurement regulations since August 28, 1958.

Logistics and supply won World War I. The U.S. became both the "breadbasket of the Allied World" and the manufacturer of needed weaponry and ammunition. The North Atlantic sealanes, by which food and supplies were furnished, proved to be every bit as vital

to the Allies as the provisioning of fighting troops and weaponry. It was not to be much different in World War II.

### **The Origins of the GAO and the OMB**

In the two decades before World War II, Congress concentrated on "lessons learned."

Allegations of "fraud, waste, and profiteering" have accompanied every war fought by the U.S. since the American Revolution and conceivably led to the passage of the Budget and Accounting Act of June 10, 1921, a law that significantly affected the procurement process. Of interest to Constitution-ists, President Wilson had vetoed the act in 1920 because it provided for removing the Comptroller General — an office established by the act to replace the Treasury Department accounting officers institutionalized in 1789 — by "concurrent resolution" of the House and Senate. However, President Harding signed the act into law when it was amended to provide for a "joint resolution," subject to presidential veto, for removal of the Comptroller General.

The act itself established the Comptroller General as an agent of the Congress and responsible only to it. Two principal organizations created under the Comptroller General were the General Accounting Office (GAO) and the Bureau of the Budget (BOB). (The Bureau of the Budget was transferred back to the Executive Office of the President by the Reorganization Act of 1939 and is what we know today as the Office of Management and Budget (OMB).)

The Budget and Accounting Act is also significant because it established the GAO as an audit and investigatory office. For the first time in procurement history, a federal government organization was given real enforcement powers relating to the receipt, disbursement, and utilization of public funds and to the settlement and adjustment of claims and demands against the United States where the country was concerned as either a debtor or creditor.

This precedence not only strengthened legislative branch control over financial matters but also, as a consequence, over procurement matters. Even today, the GAO uniquely performs

functions which still can be described as partly legislative, partly executive, and partly judicial.

### **Disarmament**

The issue of disarmament has always had implications regarding the federal procurement process since governments depend on the industrial-supplier base for military readiness.

The history of attempts at disarmament in U.S. history trace back to the Rush-Bagot Agreement (1817) when England and the U.S. agreed not to have more than three armed vessels each on Lake Erie. (In actual fact, U.S. Commodore Perry had ten ships built and the British six.) Turning back the pages of world history, we find that Rome imposed disarmament upon Carthage at the end of the Second Punic War (201 B.C.) and Napoleon in 1808 limited the size of the army of Frederick William III of Prussia. And there were numerous other disarmament attempts such as the Hague (1899), the Treaty of Versailles (1918), and the Geneva Protocol (1924). (A discussion of SALT and its successors will appear in a later chapter.)

Returning to post-WWI days, the U.S. government called a naval limitation conference in Washington in 1921 that nine nations attended (Japan was present; Germany and Russia were not). A ratio of "capital ships" was established to give the U.S. and Great Britain naval equality. Then in 1928 the Kellogg-Briand Pact was signed which was an agreement between the U.S. and France in an attempt to outlaw war.

### **Other Major Events Between the Wars**

We have already touched on the growing importance of the airplane in the weapons arsenal. The postwar years, however, saw a decline in the aviation industry that led a 1923 investigative committee to conclude that it would disappear as a part of the industrial base absent remedial action. So to stimulate the aviation industry, Congress passed the Air Corps Act of 1926 which provided for plant inspection and audit, funds for aircraft acquisition and replacement, and for construction which would benefit private aviation.

From a procurement standpoint, the act's most important features were the introduction of design competition and performance criteria rather than cost as the controlling factor in contract awards. This law also proved to be a major step forward in recognizing that different procurement methods were needed to acquire research and development and that it was necessary to maintain a strong industrial base in the event of an emergency.

The government also loaned money during the postwar years to buy and build new merchant ships in order to keep a merchant marine on the high seas. Government ships were sold to private companies at a fraction of their cost, but this effort, while noble in purpose, proved to be insufficient to meet the maritime demands of World War II.

Then the "boom" went "bust," precipitated by the financial panic created by the crash of the stock market on Tuesday, October 29, 1929. For the next four years the prices of stock went down, industry slowed up to half of its 1929 capacity, unemployment climbed to a range of 10-15 million workers, and the collapse of the banking system appeared imminent. The United States had entered the era called "The Great Depression," and the ramifications of this bleak period in American history were felt by those involved in doing business with the government.

Upon the recommendation of President Hoover, Congress established the Reconstruction Finance Corporation (RFC) in January 1932 as a government corporation. Its early function was to provide credit to businesses and banks suffering from the Depression. During the 1930s, World War II, and the postwar years, the RFC represented small business with respect to government contracting. Title II of the Small Business Act of 1953 disestablished the RFC and Title I established the Small Business Administration (SBA) as we know it today.

Under President Hoover Congress in 1930 established a "War Policies Commission." Its mandate was to review the exercise of eminent domain or other reasons to take and use private property for public purposes during war and to remove the profits of war in the event of war. The commission was even chartered to consider a constitutional amend-

ment, but nothing came of it.

Two laws enacted during this period that are still effective are the Davis-Bacon Act (March 3, 1931) and the Economy Act (June 30, 1932). Davis-Bacon provided for the payment of prevailing wage rates for construction for government purposes; the Economy Act, which enabled interdepartmental procurement, was recently revised to facilitate interdepartmental transfers.

With an economic collapse to contend with, one might surmise that the President and the Congress would have little time, if any, to concern themselves with matters relating to federal procurement. The reverse occurred.

During President Roosevelt's "New Deal" Congress enacted a plethora of legislation the likes of which had not been seen before. Those affecting procurement include:

- *National Industrial Recovery Act (NIRA)* (1933) to eliminate "cutthroat" competition and to stabilize and "fix" prices. Under the act, which provided for a \$3.3 billion program under the Public Works Administration, the President created the National Recovery Administration (NRA) whose Blue Eagle symbol was an award of merit for employers who observed a code of fair competition. NIRA was declared unconstitutional by the Supreme Court in 1935, but most of its essential provisions, other than price fixing, would be restored in later legislation.

- *Buy American Act* (March 3, 1933) to promote the use of U.S.-produced supplies and manufacturers and to enhance opportunity for U.S. manufacturers or suppliers. The clause relating to this provision appears in our contracts today.

- *Vinson-Trammel Act* (March 27, 1934) to regulate profits on shipbuilding and aircraft for the Navy to 10 percent. The act was later extended to army aircraft and to the Maritime Commission for shipbuilding. Before and during World War II the excess profit tax was reinstated and contracts subject to Vinson-Trammel were exempted. Note that in the 20-year period between World War I and World War II, more than 200 pieces of legislation to control profits were introduced in Congress. Vinson-Trammel was repealed in the DOD Authorization Act for 1982 (December 1, 1981).

- *Copeland Act* (June 13, 1934) to provide criminal sanctions against anyone

who induced a kickback on a government construction project or a contractor construction or rearrangement project financed with government funds. Called the "Anti-Kickback Act," it is also in our contracts today.

- *Miller Act* (August 24, 1935) required contractors performing construction, alteration, or repair of any public building or public works to post a performance bond for protection of the U.S. Government. It also provided for an additional bond to protect persons furnishing labor and material for such arrangements.

- *Walsh-Healy Public Contracts Act* (June 30, 1936). The act is essentially an agreement to working hours and minimum wage rates for contracts involving the manufacture or furnishing of materials, supplies, articles, and equipment in any amount exceeding \$10,000. This, too, is in applicable contracts today.

### **Procurement and Civilian Agencies**

Our look into the history of federal procurement has necessarily focused thus far on the establishment of laws and regulations and changes thereto which often have a pending war, a war, or a just concluded war as a basis. Because wars cost so much and because the federal government is responsible for directing war efforts and making unusually large outlays through its military departments in times of war, it logically follows that this is when Congress and the various administrations will be looking the hardest at the government procurement process. This is true today.

Nevertheless, even in the early years the so-called "civil agencies" of our government also had procurement responsibilities. Under President Theodore Roosevelt via the Reclamation Act of 1902, construction of irrigation projects was initiated in the arid West, the size of the national forests was increased from 43 million to 194 million acres, and the U.S. Forest Service was established under the Department of Agriculture.

The Bureau of Reclamation, which is under the Department of the Interior, was also created by the 1902 Reclamation Act. Its heyday may have been in

the 1930s when the U.S. was struggling to extricate itself from the Depression by providing jobs and contracts. Among its more noteworthy achievements were:

- Hoover Dam, begun in 1930 and completed in 1936. Contracting for construction of the dam required new concepts in procurement. Because there was no single firm which could bid to build the dam itself, the "consortium" concept of "teaming" of contractors was recognized; many of our major architecture-engineer firms who were later to build worldwide trace their roots to Hoover/Boulder Dam. Likewise, no single insurance company could post the government-required bonding, and so the insurance companies, too, formed a consortium to provide the guarantees required by the government.

- Construction of the Grand Coulee Dam, begun in 1933. A grant of emergency relief funds provided for design costs. The building of the dam was made a federal Public Works Administration project in November 1933 under funds appropriated for that purpose.

- The Tennessee Valley Authority (TVA), created in 1933 as a public corporation. TVA was an outgrowth of two, large, government-built nitrate munitions plants at Muscle Shoals in northern Alabama in World War I. This time was also marked by creation of the Civilian Conservation Corps (CCC), the Works Project Administration (WPA), and creation of the Federal Emergency Relief Administration (FERA).

The government was creating requirements, jobs, and opportunities to bring the United States out of The Depression as rapidly as possible.

## On the Verge of WW II

This era cannot be left without touching on the long and illustrious history of the U.S. Army Corps of Engineers. During the 1930s the Corps was responsible for the building of dams and waterways in the West.

Corps history traces to the Revolutionary War and the original organization and operation of the Military Academy at West Point for which it at one time had responsibility. Under the Rivers and Harbor Act of 1820, the Corps supervised the construction of fortifications, harbors and harbor improvements, and the improvement of inland waterways. The building of the Panama Canal (1904-1914) under Col. George W. Goethals was one of its most outstanding achievements. Combat engineers were formed to fight in both World Wars I and II and served with distinction. Corps contracts provided employment during The Depression and contributed to the building of a stronger United States.

The foregoing activities spawned an industry which after World War II would be responsible for building oil pipelines across the Arabian Peninsula and for erecting facilities in the Pacific for use by the Atomic Energy Commission as atomic/hydrogen weaponry was developed.

By 1938 it was fairly obvious to astute observers that the United States was on a collision course which would involve its entry into World War II. Japan had invaded Chinese Manchuria in 1931, Italy had invaded Ethiopia in 1935, Franco prevailed in Spain, and Germany had annexed Austria and partitioned Czechoslovakia.

Support for isolationism as propounded by Senators La Follette and Nye was waning; U.S. sympathies for what was ultimately to be an "Allied Cause" were growing. The "Neutrality Act of 1939," which was precipitated by the outbreak of hostilities between Great Britain and France on the one hand and Germany on the other, was followed (after the fall of France in June 1940) by the gift to Great Britain of 50 aging destroyers in exchange for bases in the Caribbean and the Atlantic. "Lend-lease" was begun.

In July 1939, Public Law 76-168 was enacted, allowing the War Department to enter into contracts without public advertising when the procurement was determined to be of a classified nature and its details were not to be publicly divulged. The Secretary of War was required to sign a "Certificate of Secrecy," and bids had to be submitted to three predetermined, responsible firms, with the low bidder receiving the contract. The law was revised in March 1940 (P.L. 76-426) to allow the award of contracts to not only the lowest bidder but also to the three lowest bidders (alternate sources of supply were being developed).

Later, in July 1940, President Roosevelt was to declare a "threatened national emergency" and established the Office for Emergency Management (OEM) within the Executive Office of the President. OEM had the authority to clear Army and Navy contracts, functions which were eventually transferred to the Office of Production Management (OPM) and subsequently to the War Production Board (WPB) when it was created.

## World War II

### The Catastrophe at Pearl Harbor

It was a quiet Sunday morning. Out of the northern skies off the island of Oahu, Hawaii, shortly before 8 a.m., a wave of 180 bombers and fighters flew over Kahuku Point. The planes bore the emblem of the Rising Sun, that of the Empire of Japan. The date was December 7, 1941.

Some 90 of the aircraft circled in a westerly direction. They would rejoin the other aircraft over Pearl Harbor after flying in over Barbers Point which lay to the immediate west of the naval base. The balance of the air armada swept down the center of the island and unleashed bombs and machine gun fire upon the various U.S. military installations at Schofield Barracks, Wheeler Field, and the Iwa Marine Base. Some diverged to targets at Hickam Field and to the Kanehoe Naval Air Station and Bellows Field to the east. The two contingents converged in a pincers over the Naval Air Station at Ford Island and at Pearl Harbor, home base of the U.S. Pacific Fleet.

Seventy of the ninety-four ships moored at Pearl Harbor that morning were combat vessels and included eight battleships on "Battleship Row." It would prove fortuitous that the aircraft carriers were conducting exercises at sea and thus escaped damage or sinking.

A second wave of 171 aircraft would strike an hour later. The damage inflicted during the approximately two-hour long raid was catastrophic: seven battleships, three cruisers, and three destroyers either sunk or severely damaged, 347 out of 394 U.S. combat planes destroyed or damaged, and 2,403 American lives lost. Japan conducted simultaneous strikes throughout the Pacific and East Asia in the Marshall, Marianas, and Philippine Islands and at Hong Kong, Thailand, and Malaya.

The catastrophe at Pearl Harbor significantly altered the course of World War II and moved the United States from a position of neutrality and sometimes arbitrator to that of a combatant. The so-called "sleeping giant" had been awakened to become known, ulti-

mately, as the "arsenal of democracy." The war would also lastingly affect our federal government procurement process unlike any other war or incidence in the history of the nation.

### The Events Preceding Pearl Harbor

To gain a full perspective of the state of the world as America formally entered World War II, we need to trace and understand a little of the world's prewar history. This history puts in context many of the actions of Congress before Pearl Harbor, and it is surprising how many of those actions directly or indirectly involved government procurement. The war-time measures taken were the precursors to the plethora of legislation enacted and regulations codified after the war — much of which we work with today in government procurement. One might say it was an attempt at the application of "lessons learned."

### Events in Asia and the Pacific

Japan had established a so-called "Greater East Asia Co-Prosperity Sphere" to give it domination of Southeast Asia and the Western Pacific Islands. This territory extended from the Kurile Islands southeast to the Marshall Islands, west to what is known today as Indonesia (then the Netherlands East Indies), and to India and the Asian subcontinent, embracing Burma, the Malay States, Thailand (Siam), and French Indochina (now Vietnam, Laos, and Cambodia). Also included within this sphere were New Guinea, the Philippines, and most of China.

Japan had taken Chinese Manchuria, renaming it "Manchuokuo," in 1931 but upon being condemned by the League of Nations for this action, withdrew from the League. In 1937 Japan captured the major Chinese cities of Peiping (Peking), Shanghai, Nanking, Hankow, Canton, and Tungshan (Suchow); in 1940 after the fall of France, Japanese troops occupied northern Indochina with the dispensation of the

French Vichy government and would occupy the balance of Indochina by mid-1941. It was from these bases that Japan launched its many attacks in December 1941 coincidental with the attack upon Pearl Harbor.

### Events in Europe

Almost immediately after Adolph Hitler became Chancellor in 1933, Germany withdrew from the League of Nations. Hitler also renounced the Treaty of Versailles (1935), and in 1936 Germany marched into the demilitarized Rhineland without opposition from France, a very calculated gamble. Austria was taken in 1938, and that same year at the Munich Conference, Czechoslovakia ceded the Sudetenland to Germany. Early 1939 saw Germany seize Bohemia and Moravia and later the Polish Corridor, including the "free city" of Danzig which linked Germany with East Prussia; Memel, from the tiny Baltic country of Lithuania, was also seized. Italy had invaded Ethiopia in 1935 and Premier Mussolini dispatched his troops across the Adriatic Sea against little Albania in April 1939; unrest was rife in the Balkans between Hungary, Rumania, and Yugoslavia.

The stage was now set: on September 1, 1939, Germany commenced its assault upon Poland, both Britain and France declared war against Germany on September 3, Poland was all but overrun by September 17 (the same day Russia invaded a beleaguered Poland from the east), and the formal surrender of Poland and Warsaw occurred on September 27.

Hitler could now look to the west and to the north. In April 1940 a German "blitzkrieg" was unleashed through Denmark and into Norway, followed by a massive assault of 89 divisions — paced by the mechanized Panzer units — through the lowlands of Holland and Belgium and into France. The assault started on May 10 and climaxed 25 days later with the heroic evacuation of close to 340,000 British, French, and Allied troops from the port of Dunkirk, France. The evacuation, considered by military strategists to be nothing

short of a miracle, was completed between May 26 and June 4, 1940. Paris fell ten days later on June 14.

#### **Pre-WW II Legislation Mobilizes U.S. Federal Procurement Workforce**

The United States was just emerging from the "Great Depression" as war clouds gathered over the rest of the world. Historians have interpreted the U.S.'s strong sentiment for isolation, as manifested in the Neutrality Act of 1937, as giving encouragement to the aggressor Axis nations. But despite U.S. resistance to becoming involved in European wars, the continued, unabated acts of aggression made it obvious that we were going to have to choose sides.

Several pieces of legislation enacted during the years 1939-1941 affected the federal procurement process and our eventual involvement in WW II. One bill, the Public Works Act of April 1939, authorized the Secretaries of War and Navy to negotiate construction of projects to be located outside the continental United States. This act required that negotiations be conducted with three or more contractors, that contracts be cost-plus-fixed-fee (CPFF) with fees limited to 10 percent of estimated costs, that the President sign approval, and that a military officer participate with the contractor's board of directors to safeguard U.S. interests. The act also authorized procurement of A&E services on a negotiated basis, a decision which led to speedier construction and the alteration of specifications with minimum delay.

Another interesting aspect of prewar contracting activities occurred in July 1939 when the War Department was authorized to negotiate for the procurement of classified items — such as aircraft parts, instruments, and accessories — *without* public advertising. Note that offers had to be made to at least three reputable firms and that the Secretary of War was required to issue a "Certificate of Secrecy."

Then as concern for the plight of the Allies grew in 1939, Congress rescinded those provisions of the Neutrality Act that restricted the sale of armaments and authorized sales of every type of armament on a "cash and carry" basis. The administration's objective was to rearm the United States as rapidly as

possible and to establish a production base for the Allies.

On the European front Germany had invaded Poland, and in a series of lightning-like strokes, German tanks and aircraft totally routed the Allied armies, culminating in the historical evacuation at Dunkirk. These acts of aggression shifted sentiment in the U.S. from isolationism to strong support of the Allied cause. The nationwide campaign — "Bundles for Britain" — gave evidence to this development.

Other congressional and presidential actions underscored the increasing disposition of the U.S. toward assisting the Allied Forces.

- The "Multiple Awards Act" (March 1940) authorized the Secretary of War to award contracts for aircraft, aircraft parts, instruments, and accessories to the three lowest bidders, not to the lowest responsible bidder. The idea was to divide the work load and to build up the industrial base. Then, after considerable pressure from President Franklin Roosevelt, Congress in May 1940 consented to his requests for larger defense budgets and approved legislation to build 50,000 airplanes and a 200-ship "two-ocean" Navy.

- The "Speed Up Act" (June 1940) authorized advance payments of up to 30 percent of contract price, eliminated the requirement for advertised bidding for certain procurements, and established a priority system. Also in June, the Department of the Treasury dropped bidding procedures for acquiring strategic materials.

- In July 1940 the President's declaration of a "threatened national emergency" led to the establishment of the Office for Emergency Management (OEM) within the Executive Office of the President. Among its activities was "clearing" Army and Navy contracts, a function later transferred to an Office of Production Management (OPM) and after the outbreak of hostilities with Japan to the War Production Board (WPB).

- The issue of "reasonable" profit for defense contractors surfaced in July 1940 when Treasury Directive 5000 was issued. The thrust of the directive was to curb "excess profits," and it constituted the first regulatory guidance relative to the allowability, allocability, and reasonableness of costs. (The directive was subsequently published separately

as the "Green Book" and was used extensively by terminating contracting officers as the war wound down. The predecessor of the ASPR/DAR, FPR, and the FAR, the Green Book is also in the history of the Cost Accounting Standards Board and the Federal Accounting Standards Board.)

- In an unprecedented move, Congress passed the "Selective Service Act" (September 1940), which established the first "peace time" draft in American history. Later that month the U.S. traded 50 aging World War I destroyers to Britain for the right to establish American air and naval bases on British soil from Newfoundland to British Guiana in South America.

The chronology of events on the European front and U.S. Congressional actions made it clear that the inclination toward U.S. involvement was building. After two months of debate Congress passed the "Lend-Lease Act" in March 1941, an act which gave the President unlimited authority to supply arms, planes, ships, and other materials to the Allies. As a result America's factories, plants, and shipyards produced at a heretofore unprecedented capacity to fulfill this obligation.

In the meantime, the Danish government-in-exile transferred military control of Greenland and Iceland from Britain to the United States, and the United States assumed defensive responsibility for the Western Atlantic and protection of the convoys across the North Atlantic. The convoys carried food and clothing as well as war materials.

During a "Fireside Chat" on May 28, 1941, President Roosevelt declared an "unlimited state of national emergency," and all Axis Power funds within the United States were frozen. At a secret conference off the coast of Newfoundland (August 1941), President Roosevelt and Britain's Prime Minister Winston Churchill met to determine strategic military collaboration should events transpire that would bring America into the war as a belligerent party. The meetings produced the "Atlantic Charter" which had as its objectives the destruction of Nazi tyranny and a better world to follow. Then, on December 7, 1941, Japanese bombs rained down on Pearl Harbor and the United States went to war as the "arsenal of democracy" unleashed its fury.

#### **The "Arsenal of Democracy" Strikes Back**

To fight World War II the United States marshalled an Army (which then included the Army Air Force) and a Navy that ultimately brought together 16 million men and women in uniform before hostilities were concluded. The "arsenal of democracy" would produce for itself and its allied partners 18 million rifles, pistols, and rapid fire weapons; 2½ million trucks and tracked vehicles; 87,000 tanks; 300,000 aircraft; 61,000 pieces of heavy artillery; 53 million tons of shipping; millions of tons of bombs, shells, explosives, and ammunition; and millions of tons of foodstuffs, clothing, and other materials. The federal budget would rise from under \$10 billion in 1941 to almost \$100 billion in 1946 — more than 80 percent designated for national defense purposes. Under its government contracts the United States would produce from its tens of thousands of small, medium, and large plants and factories more war materials than the rest of the world combined.

#### *On the Defensive*

Congress reacted swiftly following the attack on Pearl Harbor and on December 18, 1941, the President signed the first "War Powers Act." This act authorized the President to allow any department or agency engaged in the war effort to enter into contracts or to amend existing contracts without regard to public advertising, competitive bids, bid or payment bonds, or the making of advance or progress payments, irrespective of existing law or contract provisions. The use of cost-plus-percentage-of-cost (CPPC) contracts or contracts in violation of profit limitation laws was prohibited.

President Roosevelt followed with Executive Order 9001 on December 27, 1941. Under this order the War and Navy Departments and the U.S. Maritime Commission were authorized 1) to exercise the powers contemplated by the act; 2) to enter into agreements with contractors to modify or release accrued obligations of any sort, including accrued liquidated damages or liability under surety or other bonds whenever such action would facilitate prosecution of the war; and 3) to amend or to modify contracts without con-

sideration and irrespective of rights which may have accrued under a contract. Finally, the order reaffirmed E.O. 8802 which prohibited discrimination in employment on account of race, creed, color, or national origin.

The War Production Board (WPB), created in January 1942, had full responsibility to direct war procurement and production and had strict control over priorities for the military or civilian use of materials and supplies. It also assumed the functions of the OPM which derived from the OEM. In March 1942, to cope with the problem of insufficient time in which to conduct negotiations, the WPB placed a prohibition on the formal advertising of contracts, thus allowing the extensive use of cost contracts, letter orders, and letters-of-intent.

These dark days would also see the rationing of critical foodstuffs, materials, and supplies and the creation of such wartime agencies as the Office of Price Administration, the Office of Price Stabilization, and the Smaller War Plants Corporation (June 1942). The functions of the Office of Small Business Affairs, established in November 1940 under the auspices of the National Defense Advisory Commission, was to later become a part of the OPM and subsequently the WPB.

While all the necessary steps had been taken to streamline or expedite the acquisition of weapons of war and materials and supplies from the arsenal produced by America's contractors, Congress was still concerned with excess profits. The Vinson-Trammel Act of 1934, as amended, limited profits on the manufacture of naval vessels and aircraft; it had been suspended in 1940 by reestablishment of the World War I Excess Profits Tax legislation. A Supreme Court decision, curiously enough on a World War I shipbuilding case, led to the passage in 1942 of a Renegotiation Law to be amended by the Revenue Acts of 1942 and 1943 which established specific criteria. The latter act also established a War Contracts Price Adjustment Board to replace individual Boards of Contract Appeals. The Boards of Contract Appeals were reinstated after the war.

#### *On the Offensive*

Meanwhile, the fortunes of war remained uncertain for the allied forces

until a series of unparalleled, worldwide offensives, fueled by the massive quantities of ships, planes, armaments, and materials produced by the United States shipyards, factories, plants, and mines turned the tide and put Allied troops on the offensive.

The first signal of a change may have been the historic bombing of Tokyo on April 18, 1942, by sixteen B-25s from the aircraft carrier Hornet, later designated as "Shangri-La" by the President. Many historians credited the raid as being directly responsible for precipitating Japan to seek a direct confrontation six weeks later at Midway Island in early June. The tremendous defeat the Japanese suffered restored naval balance in the Pacific.

The Battle of Midway was followed by a series of invasions and battles which would lead to the conclusion of the war. One such invasion, "Operation Overlord," was initiated on June 6, 1944: "D-Day" saw the greatest invasion force ever assembled — one million men, 10,000 planes, and 5,000 ships of all kinds — strike across the English Channel.

On the home front upon the death of Roosevelt, Harry Truman became President on April 12, 1945, and the United Nations was established at San Francisco on June 26. Project Trinity — the testing of the atomic bomb by the Manhattan Project Engineers — was successfully conducted on July 16 at Alamogordo, New Mexico; with President Truman's approval, atomic bombs were dropped over Hiroshima and Nagasaki on August 6 and 9 respectively. The Japanese signed a formal treaty of peace aboard the battleship Missouri on September 2, 1945, and World War II was over — six years and one day from the date Hitler had unleashed his Luftwaffe and Panzer divisions against Poland in 1939.

#### **Footnotes**

Congress had earlier recognized that victory would be attained and that steps would have to be taken to turn off the great spigot which was gushing forth war materials at an unprecedented rate. Shifts in plans and requirements during the war had caused the change or cancellation of contracts; the wars' end would bring many contract ter-

minations.

After careful study, Congress passed the Contract Settlement Act (1944) to provide for a uniform termination clause and cost principles for the compensation of both prime and subcontractors. The basis for its principles lay in Treasury Directive 5000. Then, to cover the disposal of surplus property other than that affected under termination settlement agreements, Congress passed the

Surplus Property Act of 1944.

World War II was also the day of "Rosie the Riveter." Her impact would change our view of the industrial base forever because previously women had only been involved in war efforts as nurses or members of a USO unit dispensing coffee and doughnuts. Not only were WACs, WAAFs, WAVEs, and SPARs created as uniformed services, but women entered the work force in

unprecedented numbers. They became a major element in the work force, cranking out rifles, artillery, tanks, liberty ships, and packing "K rations." The mobilization and the spirit was 100 percent plus — American industry and the American people responded in a magnitude that had never before been seen in the history of the world. America truly proved itself to be the "arsenal of democracy."

#### Winding Down After the War

World War II was over. Nazi Germany had surrendered at Reims, France, on May 7, 1945, and on September 2, 1945, the Japanese had signed official surrender documents aboard the battleship Missouri in Tokyo Bay. Surrender by the Axis powers was "unconditional."

With the dropping of atomic bombs on Hiroshima and Nagasaki in August 1945, the conclusion of the war also marked the introduction of the "Atomic Age." Now referred to as the "Nuclear Age," it has been with us ever since. The splitting of the atom, nuclear weaponry, and intercontinental ballistic missiles would alter the course of world history and significantly affect federal government procurement laws and regulations.

Using the guidelines contained in the "Green Book" (adapted from Treasury Directive 5000) and the provisions of the Contract Settlement Act of 1944, government contracting officers and the American contractor community were busy with terminations, partial terminations, and settlement actions on tens of thousands of contracts. Some settlements traced back to "letter orders" and "letters of intent," which were authorized by the "First War Powers Act" of 1941 (P.L. 354). Interestingly, P.L. 354 is still on the books and would allow the President to invoke its provisions in an emergency much as President Roosevelt did in 1941.

Of most interest to us now are those remaining provisions that allow the setting aside of laws and regulations that affect government procurement and that allow invoking extraordinary procedures as Roosevelt did through Executive Order 9001 (December 27, 1941). The provisions not repealed were continued or merged into P.L. 85-804 in 1958. The War Powers Act of 1973, however, prevents a President from committing troops to battle areas for an extended length of time without the consent of Congress.

## Post World War II Through the Truman Years

#### Onset of the Cold War

The victorious allies began to implement agreements derived from the Yalta Conference (February 1945) and the Potsdam Conference (July-August 1945); the United Nations had been established in June just before Potsdam. With the first ominous signs of what came to be called the "cold war," came also a realization that America possessed an industrial mobilization base that needed to be maintained.

So-called "minor disturbances," described as ideological differences, were occurring worldwide between the Western Powers and the Eastern Bloc nations that were under the influence of Communist Soviet Russia. Forces from England, France, and the United States occupied West Berlin, and Russia occupied East Berlin. In March 1946 former Prime Minister of England Winston Churchill introduced the phrase "Iron Curtain" in reference to the isolation of Eastern Europe under USSR domination, the establishment of fortifications along the borders, and the unparalleled restrictions on travel, trade, and tourism.

It was obvious that America — to support its allies against the new threat posed by Soviet Russia — would continue to play its role as the "arsenal of democracy" through its contractor industrial base. So, while the production spigot was slowed down, it was not turned off. Through the government contracting process American industry continued to provide the necessary military equipment, materials, and supplies needed to help rebuild a war torn Europe.

#### New Organization and New Procurement Initiatives

Even in the face of the cold war, Congress recognized the need to return to more orderly and nonemergent procurement procedures. Put another way, it was time to return to the fundamental principle that all prospective

suppliers of goods and services to the government should have a fair and equal opportunity to do so even if the U.S. Government ultimately intended them for a friendly foreign destination and not for domestic use.

Congress was also mindful that some of the emergency provisions which had worked so well during World War II should be retained in some capacity and under certain conditions. There were also new and developing technologies to contend with — an atomic bomb, a jet-powered plane, and advanced rocketry. So to keep up with the emerging technologies and to maintain the desired level of preparedness, Congress drafted several pieces of legislation.

- On August 1, 1946, President Truman signed into law an act which created the Atomic Energy Commission. Effective January 1, 1947, the law transferred the administration and control of atomic energy from the Army Corps of Engineers, which previously had developmental responsibilities under the Manhattan Project, to the five-member commission. Of particular interest, the law allowed the commission to develop its own procurement regulations. They were succeeded by the Energy Research and Development Administration Procurement Regulations, the Department of Energy Procurement Regulations, the Federal Acquisition Regulations (FAR), and the DEAR, DOE's supplement to the FAR.

- The National Security Act of 1947 created the Central Intelligence Agency (CIA), which supplanted the National Intelligence Authority established in 1946 as the successor to the wartime Office of Strategic Services (OSS). Subject to the National Security Council (NSC), the CIA was to fulfill duties not adequately covered in the existing U.S. intelligence arms within the State Department and the military services. It was also authorized to draft and contract under its own procurement regulations — something it still does today.

The National Security Act also established the Department of the Air Force as a separate, but equal, "executive department" to the Army and the Navy. An amendment to the act two years later altered its status as an executive department to that of a "military department."

- After much deliberation and considering how the American government had prosecuted the war and marshalled the resources of tens of thousands of contractors for every conceivable kind of equipment, materials, services, raw products, etc., the Congress enacted and the President signed into law the Armed Services Procurement Act (ASPA). The act detailed very specific procedures to be followed by the Air Force, Army, and Navy when making procurements.

The services, which still had status as executive departments, immediately implemented their own procurement regulations, including clauses, terms, and conditions based on the ASPA. These would become the Air Force Procurement Instructions (AFPI), the Navy Procurement Directives (NPD), and the Army Procurement Procedures (APP). The initial regulations supplemented T.D. 5000; the service regulations would become subordinate to and supplemental to the Armed Services Procurement Regulations (ASPR) which debuted in 1949.

Finally during this period, President Truman appointed former President Herbert Hoover to look at "reorganization of the government" and to make recommendations. One critical recommendation of the "First Hoover Commission" was to have a "strong central organization to provide federal services such as supply and procurement."

#### Pause for History, 1946-1949

To understand the actions of our federal government as they relate to procurement requires knowledge of events happening worldwide. Further, when references are made to America signing a treaty to support or to supply a foreign entity, for example, it is through contracts between American industry and the U.S. Government that supplies are furnished.

With that in mind, several world events are described below which signifi-

cantly affected congressional actions taken between 1946-49.

- Civil war once again erupted in China in 1946. The war had been raging for years between the Nationalists under Chiang-Kai-Shek and the Communists under Mao-Tse-Tung. Because of the cold war, America endeavored to support the Nationalists with arms and supplies but was unsuccessful; the Nationalists subsequently abandoned the Asian mainland for Formosa (now Taiwan) in 1949.

- The so-called "Truman Doctrine" was implemented in 1947. Though it has many names, e.g., The European Recovery Plan, the Mutual Security Program, the best known name is the "Marshall Plan." This support from America, both financial and in goods and services provided by American industry through its government contracts, rebuilt Western Europe. The plan had been offered to all European nations, but the Soviet Union and its satellite nations chose not to attend the Paris Conference.

- Congress created the Economic Cooperation Administration (ECA) in 1948 and then provided more than \$6 billion in aid the first year. The ECA would become The Mutual Security Administration (1951) as emphasis shifted from economic recovery to military defense assistance. In 1953, as aid was granted to countries in Africa and Asia, it became known as the Foreign Operations Administration. The Marshall Plan is also in the history of the Agency for International Development (AID), created by the Foreign Assistance Act of 1961, which did not have any responsibility for military assistance.

- The nation of Israel was created in 1948 after Britain agreed to end its mandate over Palestine in 1947, a mandate that dated back to World War I peace terms. Future procurement history would see American industry, privately and through Foreign Military Sales (FMS), become heavily involved with supplying Israel and also the threat of Arab nation embargoes of specific U.S. companies.

- The most historical event of this period may have been the Berlin airlift of 1948-49. In June 1948 Russia, one of the four powers administering the German capital, walked out of a meeting of the "Kommandatur," the four powers organization established by the Euro-

pean Advisory Commission to ensure mutual fulfillment of terms made at Yalta and Potsdam.

Russia put a total land blockade around the German capital, and the U.S., under presidential direction and with some assistance from other Western allies, immediately commenced a massive airlift — of food and clothing primarily — to Templehof Aerodrome. After a year the Soviet blockade was broken and the autobahns again opened. The "Berlin Wall" would not be built until August 1961 after many incidences and the continued escape of East Germans to West Germany via the gateways of West Berlin.

- The Joint Chiefs of Staff (JCS) were established by law in 1947. The JCS today exercise authority over major weapons systems procurement and advises the Secretary of Defense and the President on priorities from all of the military departments.

- On April 4, 1949, the North Atlantic Treaty Organization (NATO) pact was signed in Washington, D.C. This pact, as well as the SEATO (1954) and CENTO (1959) pacts, would again involve the American contracting community as a supplier base in containing communist expansion.

#### Congress Proceeds With Its New Initiatives

Meanwhile, Congress continued to enact legislation in an attempt to return to the "old ways" and yet to allow the federal government to respond to emergencies.

World War II was an "eye opener": the strict regulations in place at the time of Pearl Harbor were overcome in just 11 days. But what would the future hold with the development of nuclear weapons, IRBMs, and ICBMs?

In 1941 ships travelled at 20-25 knots and airplanes flew at 300 mph and needed to be refueled; the Atlantic and Pacific Oceans still bought America a lot of time. Today an ICBM launched from Russia carrying a multiple-deployable set of nuclear warheads can transverse in well under an hour.

1949, as it turns out, has proved to be a significant year for federal government procurement. For one thing, Congress passed the Federal Property and Administrative Services Act (FPASA)

which established the General Services Administration (GSA). GSA was given the authority to create a set of regulations — the Federal Procurement Regulations (FPR) — which would provide procurement authority for the civil departments and which was an initiation of one of the First Hoover Commission recommendations. Unfortunately, the FPR did not see the light of day until 1959.

An amendment to the National Security Act in 1959 created the Department of Defense (DOD). The departments of the Air Force, Army, and Navy were reclassified from executive departments to military departments, an action frequently referred to as the "Unification of Services Act."

That same year DOD published the Armed Services Procurement Regulation (ASPR), the most comprehensive and detailed procurement regulation ever written. The cost principles of T.D. 5000 were incorporated into Part 15 of the ASPR, and the AFPI, APP, and NPD were also continued. ASPR became the guide for subsequent procurement regulations, including the FPR and

those regulations issued by the various departments and agencies who were eventually given legislative authority to issue their own regulations.

An ASPR Committee was also established to consider changes to the regulations and to have dialogue with industry. The ASPR would become the basis for many Armed Services Board of Contract Appeals' (ASBCA) decisions, decisions which would have the literal effect of precedential law in many instances as contractors utilized administrative remedies to solve contracting problems before resorting to the judicial system.

Other congressional initiatives during this period included the creation of the National Production Board (NPB) in 1950 and the passage of the "Renegotiation Act of 1951." The NPB, which handled priorities, allocations, and allotments, was merged in 1953 with the Business and Defense Service Administration. Under the act which created the NPB, priorities were established which gave preference to government contractor orders for critically required materials. The Defense Mate-

rials System (DMS) priority designation is a part of contract negotiation but can also be negotiated on a case-by-case basis.

The Renegotiation Act was a manifestation of Congress' continued concern with excess profits made by the government contracting community. The act adopted various provisions of the Vinson-Trammell Act (1934), Excess Profits (1940), and other forms during the period 1942-48. The Court of Claims was substituted as the forum for appeals from the board's excess profits determinations.

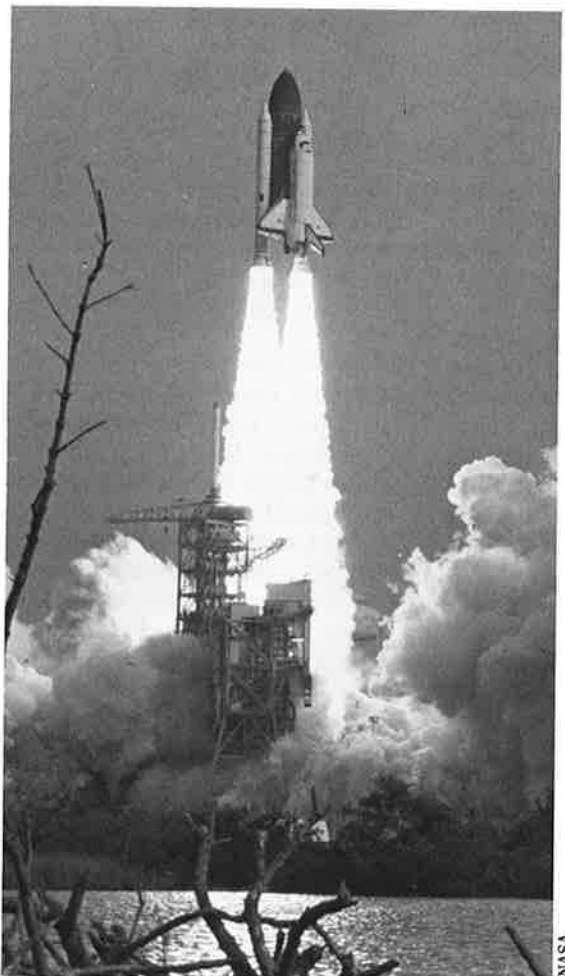
#### Addendum

In 1950 North Korea invaded South Korea. The division of Korea at the 38th parallel was a result of the many treaties and conferences between the Western Allied Powers and the USSR and the establishment of the United Nations. America would assume a lead role, acting as a UN military representative subject to the direction of the UN.



Courtesy of the Baltimore Office of Promotion and Tourism. Photo by Bob Willis.

The Congress passed the first act dealing with purchasing by the federal government in 1792. The first significant acquisition was to be a group of six frigates designed to form the nucleus of a new U.S. Navy. Three were completed in 1797, including the USS *Constellation* built in Baltimore, Maryland, and still berthed in Baltimore Harbor. The *Constellation*, incidentally, was the first U.S. Navy ship to capture a foreign warship.



The maiden flight for Spacelab began on schedule at the Kennedy Space Center, Florida, November 28, 1983. In addition to the European Space Agency-built laboratory that provided a shirtsleeve working environment in the orbiter's payload bay, the vehicle also carried a six-member crew.



Jet Propulsion Laboratory's Control Center where constant contact is maintained with the Deep Space Network. JPL assisted the Army in 1940 when it was involved with rocket experiments. In 1958 its functions were transferred from the Army to the newly-created NASA.



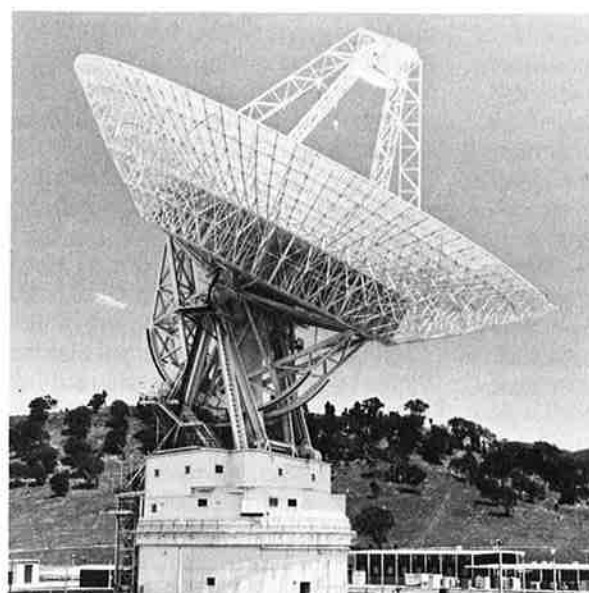
A tank equipped with teeth for making openings in Normandy hedgerows during World War II. The "Arsenal of Democracy" produced for itself and its allies 18 million rifles, pistols, and rapid fire weapons; 2½ million trucks and tracked vehicles; 87,000 tanks; 300,000 aircraft; 61,000 pieces of heavy artillery as well as millions of tons of bombs, shells, explosives, foodstuffs, clothing, and other materials.



Navy lighter transports Fifth Division men from Reykjavik to large troop transports in Hvalfjörður naval anchorage before sailing to the United Kingdom.



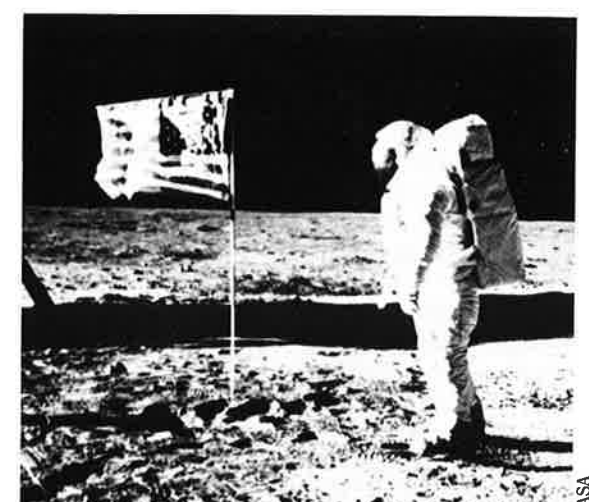
Space Shuttle Challenger prepares to touch down at Edwards Air Force Base. The mission was scheduled to land at Kennedy Space Center but was diverted to the dry lakebed in California due to fog at Cape Canaveral. The June 1983 mission carried the first five-member crew, including Sally Ride, the first woman astronaut.



More than 200 feet across and 23 stories tall, JPL's antenna in Australia will receive data from Voyager's trip to Uranus (1986) and Neptune (1989).



During World War II the United States brought together 16 million men and women in uniform before hostilities ended. Here a wounded Second Infantryman is evacuated in an LCVP in Northern France.



Astronaut Aldrin poses for a photo beside the deployed American flag during the Apollo 11 extravehicular activity. The American nonmilitary space program was established on October 1, 1958.



World War I ultimately involved two million U.S. citizens in uniform and expenditures of approximately \$35 billion. Pictured above are cadets at West Point Military Academy.

## Korea to Vietnam — The Fifties

### The Cold War Gets Hot

The decade of the 1950s, thought of by some as peaceful years, proved to be anything but peaceful. The whole era involved troubled times as former colonies were given national status and revolutions and civil wars, particularly in Africa and Asia, as well as in Europe, erupted. It was also a continuation of the cold war which had commenced between the communist-dominated eastern bloc of nations led by Russia and the western nations under leadership of the United States immediately upon the defeat of the Axis Powers. The cold war was then and is today an ideological war fought by propaganda, economics, espionage, and threats; on occasion, it turns into a hot war involving fighting, killing, and suppression.

It was not a friendly ally that shook hands with American troops at the Elbe River in 1945. It was not a friendly ally that invaded Manchuria and North Korea and reoccupied Sakhalin and the Kuril Islands in Asia. It was not a friendly ally that occupied and imposed its ideology on Eastern European nations from the Baltic Sea to the Balkans. And it was not a friendly ally that created problems in the joint occupation of Berlin which led to the airlift (1948-49) and which fomented tensions that exist today.

When North Korea invaded South Korea on June 25, 1950, the cold war became heated. The USSR had earlier denied entry into North Korea by a United Nations Commission established to supervise unification elections. The United Nations Security Council immediately (6-27-50) authorized military sanctions against North Korea. (The USSR was not present to cast a veto, having boycotted the council since January over the issue of Chinese representation from Taiwan rather than from the communist mainland.) On the same day President Truman ordered the U.S. Navy and Air Force to support South Korea; three days later he ordered support by ground forces. Eventually, fif-

teen other nations joined the U.S. in providing forces to support the United Nations' action.

### ASPR Gets Tested

From a government procurement point of view, the Korean War represented a test of the newly issued (1949) Armed Services Procurement Regulations, ASPR, promulgated by the Armed Services Procurement Act, ASPA, of 1947. The regulations were derived from the many experiences of procurement during World War II.

The ASPR was the most detailed regulation concerning procurement ever issued. While it provided that competitive bidding was the preferred method for obtaining goods and services, it also provided exceptions for negotiation under seventeen different circumstances, including negotiation with only one source. Other circumstances included national emergency, public exigency, small purchases (then \$10,000 — now \$25,000), personal or professional services, services of educational institutions, purchases outside of the United States, medical supplies, property acquired for resale, subsistence supplies, competition impracticable, research and development, classified purchases, standardization required, substantial initial investment, negotiation after advertising, industrial mobilization, and other legal authorization, such as acts of Congress, international agreements, etc.

Contracting officers were required to document their files with Determinations and Findings (D&Fs) when utilizing any of the exceptions, and higher level authority was required depending upon the dollar threshold. A department secretary could also authorize a "Class D&F" for a class of procurements normally within the Department of Defense for a total weapons system which might involve thousands of procurements.

Contracting officers were also re-

quired to document their files when dealing with a sole or single source. These are generally known now as JNCPS — Justification for Non-Competitive Procurement.

On September 8, 1950, the President signed the Defense Production Act to establish priorities, allocate materials, stabilize prices and wages, and regulate consumer credit. He declared a state of national emergency on December 16, 1950, following the invasion of 200,000 Chinese Communist troops from Manchuria across the Yalu River into Korea on November 26. Congress immediately passed the National Emergencies Act which, among other things, allowed contracting officers to negotiate without advertising.

By June 1951 the Chinese offensive was halted roughly along the 38th Parallel, the original line separating North Korea from South Korea. Truce negotiations were initiated at Kaesong on July 10, broken off, then resumed October 25 at Panmunjon. It was not until July 17, 1953, that an armistice was signed creating a demilitarized zone between the two Koreas. America suffered 150,000 casualties, including 27,000 killed, the most suffered by any of the supporting nations representing the United Nations. Interestingly enough, talks continue at Panmunjon today, 31 years following the armistice.

### Technology Explosion

World tensions were not eased but rather they increased during this era as technology, mostly involving sophisticated weapon systems developed by the east and the west, leaped forward. This, in turn, mandated more sophistication in the procurement process and also led to larger procurement budgets, including those for research and development.

### Atomic and Nuclear Weapons

America continued the development of its atomic weapons, thus temporarily

providing the west with an advantage in the cold war. Tests, called Operation Crossroads, were conducted at the Bikini Atoll in the mid-Pacific in July 1946. As did all subsequent tests, these tests, called Able (an aerial explosion) and Baker (an underwater explosion), heavily involved the American contracting community from constructors to scientific-oriented companies.

The Atomic Energy Commission (AEC) officially took over cognizance of atomic energy research and development on January 1, 1947. Tests were made from 1948 through 1953 at Eniwetok, an atoll also located in the mid-Pacific, and at the Nevada Proving Grounds northwest of Las Vegas.

On July 23, 1949, the President announced that the Soviet Union had successfully tested an atomic bomb. On January 31, 1950, he ordered development of the hydrogen bomb, which we now call a thermonuclear bomb, and on February 2, 1952, he announced the successful testing of an H-Bomb at Eniwetok. The USSR detonated an H-Bomb in 1953.

In March 1954 it was announced that the thermonuclear devices already tested could "fit" with the then rocket/missile technology to provide America with a strategic superiority. One month earlier the Air Force was given development responsibilities for the Atlas intercontinental ballistic missile (ICBM), transferred from the Strategic Missile Evaluation Committee under Professor John von Neumann.

England had exploded its first atomic bomb off Monte Bello Island, Australia, in 1952; France and other nations followed as the world's nuclear family grew. The United Nations convened an international conference on the "Peaceful Uses of Atomic Energy" in Geneva, Switzerland, in August 1955, leading to the development of the International Atomic Energy Agency in 1957.

It could be said that this was a direct result of U.S. willingness to share its knowledge for the peaceful uses of atomic energy as manifested in the 1954 amendment to the Atomic Energy Act of 1946 and the many bilateral agreements for cooperation under the "Atoms for Peace" plan. By 1961 the U.S. had entered into 41 such agreements with 39 different countries.

The end of this era saw America make

its first underground nuclear test at the Nevada Proving Grounds on September 19, 1957. Nine days earlier the USSR had made aerial tests which significantly increased the level of radioactivity in the atmosphere. These would come to be called "dirty bombs" and lead the various powers to seek a variety of test bans through international treaties.

### Rockets and Missiles

The history of rocketry has ancient origins which trace back to the development of gunpowder in China and the attributed use of rockets in war ("arrows of fire") used in the siege of Kaifeng, A.D. 1232. Rockets were used as weapons throughout the eighteenth and nineteenth centuries, and the "rockets red glare" in our national anthem was the result of Francis Scott Key's observations during the assault on Fort McHenry in Baltimore Harbor in 1812.

American physicist Robert H. Goddard is considered the father of the modern rocket. He designed and built the valves, regulators, pumps, gyroscopes, and other devices that are used in present-day rockets or what we now call missiles. Utilization of rockets/missiles as modern-day weapons of war were advanced by Germany during World War II under Dr. Wernher von Braun; the V-2 rocket, launched off sites in Holland, bombed London until 1945. As the war ground to a close, both the eastern and western powers raced to Peenemunde on the Baltic Sea to capture or accept the surrender of members of the German scientific team.

Dr. von Braun and a number of his associates did surrender to allied forces and were subsequently relocated to the United States under "Operation Paper Clip." They developed the Redstone missile and Saturn which later, under NASA, would boost Apollo in man's first trip to the moon.

After the 1954 announcement that atomic/nuclear warheads could be transported to a target by ballistic missiles, the cold war got even warmer. The United States had already begun in 1953 to develop its IRBM/ICBM capabilities of land-based missiles called Thor, Atlas, and Titan. The Western Development Division (WDD) of the Air Force, which developed Atlas, was created. Atlas launched the Mercury manned satel-

lites and an alternative, Titan, launched the Gemini satellites. Minuteman began in 1958.

The first Atlas, which contained 100,000 precision parts provided by 3,500 suppliers, was successfully launched from Cape Canaveral, Florida, on December 17, 1957. In November 1958 Atlas traveled 6,338 miles, the first missile to go "full range"; on May 20, 1960, it traveled more than 9,000 miles, going past the tip of South Africa. The first Polaris was launched from underwater for the first time on April 14, 1960, and in July Polaris was launched off the atomic submarine George Washington and traveled 1,150 miles to its target. Russia had successfully tested an ICBM on August 26, 1957.

### Satellites — The Spage Age Arrives

The world was astounded on October 4, 1957, when the USSR announced it had successfully placed a satellite into earth orbit. Called Sputnik I, it was the first artificial, man-made object to orbit the earth; a month later Sputnik II, containing the dog "Laika," orbited the globe.

The first U.S. satellite to achieve orbit, Explorer I, was launched from the Cape on January 31, 1958; it transmitted data into May and established the presence of the Van Allen radiation belts around the earth. Vanguard I was launched in March, and in August 1960 America recovered its first payload from orbit, a capsule from Discoverer XIII.

An Atlas booster launched the first communication satellite on December 18, 1958 ("Project Score"). President Eisenhower beamed his historic Christmas message to the world from it. The Echo I satellite, visible from Earth, was launched on August 12, 1960.

### Other Technology

During the 1950s other technologies were developed that involved both the government and the American contracting community in one way or another. Transistors were developed; ultimately, this technology led to modern day computers, and also to the special regulations now in effect for the acquisition of Automatic Data Processing Equipment (ADPE) by the government and its contractors. The laser (1960) had all kinds of technological applications, for both civilian and military use, and atomic

energy was converted for other uses. The first nuclear-powered submarine, the Nautilus, was dedicated at Groton, Connecticut, on June 14, 1952, and was commissioned on September 30, 1954. It sailed under the icy North Pole in 1958, and was followed by a sister ship, the Triton, which completed an under-sea voyage around the world in May 1960.

Turning to aviation technology, a U.S. Air Force jet aircraft set a transatlantic speed record of 5 hours and 28 minutes, New York to London, in 1958. A Navy X-15 rocket plane flew at 3,900 mph, nearly six times the speed of sound, and at altitudes of 300,000 feet.

In 1959, America launched nuclear-powered merchant ships and commenced the development of nuclear power plants to provide home and commercial electricity.

### The 1950s

As earlier noted, the decade of the 1950s was not serene and proved to be the staging ground for much of what we endure today. Significant historical events during that period follow:

- Through a coup d'etat the communists took control of Czechoslovakia in February 1948. In May of that year, Israel was proclaimed a nation, and in October 1949 the German Democratic Republic (GDR), now known as East Germany, came under the control of the USSR.

- The decade also saw the origins of the Vietnam War, a war which would consume America throughout the 1960s. President Truman met with Premier Plevin of France on January 30, 1951, and assured continued U.S. aid to the French forces and nationalist armies of Vietnam, Cambodia, and Laos, which were engaged in civil wars with communist adversaries. On March 26, 1953, President Eisenhower assured French Premier Mayer of additional U.S. aid in the conflict which the President described as a struggle against communism and not a colonial war.

The French fortress of Dien Bien Phue, Vietnam, fell to the Vietminh, led by Ho Chi Minh, in June 1954; the civil war in Indochina was temporarily over. A month later, a conference meeting at Geneva, Switzerland, divided Vietnam at the 17th Parallel: the north came

under communist control by Ho Chi Minh, the south under the Emperor Bao Dai. A national referendum in 1955 established South Vietnam as a republic and President Ngo Dinh Diem replaced the Emperor; Cambodia and Laos were restored as constitutional monarchies. Unification elections scheduled for 1956 never took place.

- In 1954 America signed the Southeast Asia Treaty Organization (SEATO) in Manila; the Warsaw Pact of eastern European Nations, under the dominance of the Soviet Union was also formed. That year, the U.S. and Canada entered into a treaty and began construction of the DEW (Distance Early Warning) line across northern Canada to detect objects coming over the North Pole from the USSR.

- In 1956 the USSR suppressed riots in Poland and quashed a rebellion in Hungary; Egypt seized the Suez Canal, and war erupted between Egypt on the one side and Israel, Britain, and France on the other; Fidel Castro fomented a revolution in Cuba.

- The same year that U.S. troops were dispatched to Lebanon (1958), communist China invaded Tibet. America signed the Central Treaty Organization (CENTO) Pact at Ankara, Turkey, in 1959. Then in 1960 a U.S. U-2 aircraft was shot down over Russia causing Premier Khrushchev to withdraw from the Paris Summit which had been called to ease world tensions.

### Congress and Procurement

Meanwhile, the Congress and the executive branch of the U.S. Government were quite busy coping with domestic and international problems.

- The National Science Foundation (NSF) was created when President Truman signed the act on May 10, 1950. The language of the act indicated that the foundation's purpose was "to promote the development of new scientific knowledge and talent." Through its grants and contracts mostly to educational institutions, the NSF became the lead organization in exploiting the rapid advances made in technology. It also became the first federal agency to identify its grant requirements in regulatory form similar to the then newly published ASPR.

- The Internal Security Act, referred

to as "the McCarran Act," was passed in 1950 over the President's veto. It subsequently led to the many investigations and hearings conducted under the auspices of Senator Joseph McCarthy of Wisconsin relative to communist intrusion into the U.S. Government.

- In April 1951 President Truman re-established the Wage Stabilization Board to freeze wages and salaries. It would be the second such freeze in less than nine years. He did this pursuant to the Defense Production Act of 1950. The Board was "legalized" by an amendment, signed on July 31, 1951, to the Defense Production Act.

- The Renegotiation Act was signed in 1951 as was the 22nd Amendment (2-26-51) to the Constitution which limited a presidency to two terms. On the civil front, Canada (1951) authorized its participation in construction of the St. Lawrence Seaway, a 2,250-mile project which extended from the Atlantic Ocean through the Great Lakes. U.S. confirming legislation was adopted in 1954, and the enterprise was finalized in 1959.

- On April 1, 1953, President Eisenhower signed the act which created the Department of Health, Education, and Welfare (DHEW), the first new executive department (DOD notwithstanding) in 40 years (the Department of Labor was established on March 4, 1913). Establishment of DHEW is attributed to a report, December 1952, to President Truman from his Commission on Health Needs. In February 1953 Eisenhower issued an Executive Order suspending wage controls and consumer goods price controls.

- Former President Hoover was commissioned in July 1953 to head a second commission to establish what federal functions should be assumed by state and local governments. The commission recommended modernization of the budget and accounting system and reorganization of the State Department and took a long look at the newly created Department of Defense and the termination of 1,000 federal enterprises which interfered with private business.

- A 1953 law established the Small Business Administration (SBA) much as we know it today; the act was amended in 1958. Its history traces back to the first recognition of a need, both in the 1930s and 1940s, to make sure that

small business interests in government contracting were considered.

- The Air Force Academy was created in 1954. The first class was sworn in at Lowry AFB on July 1, 1955; the academy was located at Colorado Springs in 1958. The military academy was established at West Point, New York, in 1802, and the naval academy at Annapolis, Maryland, in 1845.

- On June 29, 1956, Congress passed the Federal Highway Act, which authorized construction of a 42,500 mile interstate highway system. The federal government was to meet 90 percent of the estimated \$33.5 billion in costs. The act was an amendment to the act of November 11, 1944, which provided for highways to 42 of the then 48 state capitols; it would serve 182 of the 199 U.S. cities having more than 50,000 population.

While the act was a consideration in the later creation of the Department of Transportation (DOT), its historical origins trace back to an act of Congress on July 11, 1816, to provide federal aid to the states for the construction of "post roads" the cost of which would be shared on a 50/50 basis.

The interstate highway program involved thousands of contracts and state and regional administration of countless federal grants resulting from the program. The program also resulted in numerous court cases and boards of contract appeals cases.

The North American Defense Command (NORAD) was established between Canada and the U.S. at Cheyenne Mountain in Colorado on May 12, 1958. Subsequent world events and developing technologies have considerably changed the NORAD mission since its original conception.

- President Eisenhower proposed to

the Congress on April 2, 1958, the establishment of a National Aeronautics and Space Administration (NASA) as an "independent office" to be responsible for "nonmilitary" uses of space. Created on October 1, 1958, it eventually assumed responsibility for programs like Vanguard and Explorer which did not have specific military applications. NASA beginnings trace back to the NACA (National Advisory Committee on Aeronautics), which was established in 1915 during President Woodrow Wilson's term and before America's entry into World War I.

On December 3, 1958, President Eisenhower signed the Executive Order which transferred the government arrangements with the Jet Propulsion Laboratories (JPL) operated by the California Institute of Technology (CIT) from the Department of the Army to the newly formed NASA. JPL's assistance to the Army dated back to 1940 when it was involved with rocket experiments and Jet Assisted Take-Off (JATO) by rocket propulsion. Control of the Army Ballistic Missile Agency at Huntsville, Alabama, was transferred from the Army to NASA on October 21, 1959.

- America grew in the late 1950s with the addition of two states. Eisenhower signed the Alaskan Statehood Act on July 7, 1958, and proclaimed it as the 49th state on January 3, 1959. He signed the Hawaiian Statehood Act on March 3, 1959. The proclamation also noted that Puerto Rico became the first U.S. overseas commonwealth when President Truman signed the Puerto Rico Constitution Act on July 25, 1952.

- On the civil front, Queen Elizabeth of England dedicated the St. Lawrence and Great Lakes Waterway on June 26, 1959. The waterway provided all-year ports from Chicago, Illinois, and Duluth,

Minnesota, from inland America to the Atlantic Ocean. Again, thousands of contractors were involved in the construction and thousands in the passage-way which was provided.

- In 1958 after numerous extensions of the First War Powers Act, its provisions were continued or merged into Public Law 85-804, National Defense Contract Authorization. DOD was reorganized, implementing some recommendations of the second Hoover Commission, and the Defense Supply Agency (DSA) and Defense Contract Administration Services (DCAS) were created.

- In 1959, the DOD transferred the Military Space Program from the ARPA (Advanced Research Projects Agency) to the Air Force. (Note that ARPA is now DARPA, with the "D" standing for "Defense.") The Federal Procurement Regulations (FPR) were issued to provide detailed procurement guidance and requirements for the nonmilitary agencies; the lead agency for the FPR was the General Services Administration (GSA). The FPR, which had been authorized by the Federal Property and Administration Services Act of 1949, contained 15 exceptions permitting negotiation as opposed to the 17 provided by the ASPR. However, it did not include the exceptions related to substantial initial investment and industrial mobilization.

### Addendum

One other noteworthy event occurred in the decade of the 1950s. An organization, which we now call the National Contract Management Association (NCMA), was formed in 1959. See the May 1984 Anniversary issue of *Contract Management* for details.

## America Goes to the Moon – The Sixties

### “The Eagle Has Landed”

“Houston, Tranquility Base here. The Eagle has landed.”

The words were those of Astronaut Neil Armstrong, mission commander of Apollo 11, as the Eagle touched down on the Moon. The “Eagle” was the Lunar Excursion Module (LEM) which only a little more than ten minutes earlier had separated from its mother ship the “Columbia” (the Apollo 11 command module) to begin the approximately 70-mile descent to the surface of the Moon. A few hours later on July 20, 1969, man took the first steps ever on another celestial body, an event watched or heard by an estimated one out of four people living on our planet.

The return of Apollo 11 to Earth four days later marked attainment of a national objective established by President John F. Kennedy eight years earlier (May 25, 1961) when he said, “The United States should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to Earth.” The successful flight of Apollo 11 would herald an end to one of the most spectacular and tumultuous decades in American history.

### The Tumultuous 60s

We could label the decade called “the 60s” as one of the most contradictory in American history.

On the one hand, the space program achieved stupendous successes and tremendous advances were also made in the development of various technologies. In an otherwise restless world, it was also a decade where Americans sought equal rights and a sense of well being and, at the same time, reached out to assist other nations through a variety of programs.

On the other hand, we were engaged in what many now call “the most unpopular war in our history,” the Vietnam War in support of the Republic of South Vietnam in Southeast Asia. Escalation of the war, domestic strife

at home with riots and demonstrations, and America’s involvement in the “Cuban Missile Crisis,” which put us on the brink of an atomic confrontation with Russia, contributed to the tumultuous domestic climate.

On both sides of this contradiction, the government relied on the American contracting community to provide goods and services and research and development to further its many programs and to prosecute the war.

Some observers have noted that through the 50s and the 60s the government was establishing a permanent defense industry in recognition that the arsenal system could no longer respond to modern day needs, response times, and the technology explosion. New terms like “readiness” and “an industrial mobilization base” came into vogue. At the same time the so-called civil agencies of our government were given responsibilities to contract for research and development and to exploit the new technologies in the performance of their missions.

The government contract more and more became a vehicle to implement programs commonly described as “socio-economic” in nature. Subsequently, regulations were adopted and implementing provisions written into federal contracts which today include non-discrimination against minorities, women, the aged, the disadvantaged, and the handicapped. Set-asides and preferences were created for small business and businesses in labor surplus areas (areas having high unemployment), occupational health and safety were further regulated, and environmental concerns were addressed in government contracts. Many of these trace their foundations to the 60s.

The 60s were not only tumultuous for the country and the world, but also for government contractors who were given a plethora of new regulations to comply to, report upon, and to be subject to audit or examination. It was also tumultuous for the federal procurement community, which was held responsible for ensuring contractor compliance and the validity of contract reports and for

conducting audits and examinations.

### Defense Procurement Reorganized

During the Kennedy Administration the Department of Defense, under Secretary Robert S. McNamara, recognized that procurement methods, techniques, and centralized and coordinated organization needed to be structured differently to meet the challenges of the developing technologies.

One innovation introduced during McNamara’s tenure was a streamlined, line-item budgetary system designed for maximum overview and ease of explanation by DOD to the Congress. What we call “Program Element Numbers” today were known in the 60s as “Hitch Code” numbers after their system developer, Charles Hitch. These numbers, which appear on commitment documents to this day, also enable ease of budget analysis for specific programs.

Significant reorganization occurred in the services during this period in federal government procurement history.

● **The Air Force.** In 1961 the Air Materials Command (AMC), which had existed since the creation of the Air Force as a separate department from the Army, and the Air Research and Development Command (ARDC) were reorganized to form two new commands — the Air Force Logistics Command (AFLC) and the Air Force Systems Command (AFSC). The latter was responsible for Research and Development (R&D) and the development of major new systems, then primarily aircraft, electronics, missiles, and satellites. The former was responsible for acquisition once new systems were classified as operational and turned over to the operating commands.

On July 1, 1969, other commands were designated as procurement activities and given the necessary authority to contract for their requirement. Major weapons systems development, however, would remain the responsibility of AFSC.

● **The Army.** In 1962 the Army Mate-

rials Command was created. The procurement functions of the Army’s various technical services were transferred to the new command with the exception of construction, which remained under the purview of the Corps of Engineers (COE), and common use, commercial items. Procurement responsibility for the latter rested with the Defense Supply Agency (DSA) which had been formed in 1958.

● **The Navy.** The Navy Systems Commands were organized in May 1966 to replace technical bureaus; the Naval Material Command (NMC), which replaced the Office of Naval Material, reported directly to the Chief of Naval Operations (CNO) and established procurement policy for its subordinate commands — ships, air, ordnance, electronics, etc.

### The World In The 60s

During the 60s the federal procurement process was beset by the Congress with laws and by the executive branch with its new or revised regulations, many of which were initiated to respond to domestic needs and world events. To understand these actions, which will be detailed later in this article, we need to look back at America’s involvement in world events.

#### The Cuban Missile Crisis

One of the most frightening events in American history and possibly in the world, occurred in October 1962. Russian ships loaded with missiles capable of carrying nuclear warheads headed across the Atlantic to deliver that cargo to Cuba, just less than 100 miles from U.S. shores.

The U.S. and Cuba had not been on friendly terms, diplomatic relations having been severed on January 3, 1961, just before President Kennedy’s inauguration. The disaster near the Bay of Pigs (Bahia de los Cochinos) occurred between April 17-20, 1961, when a Cuban counter-revolutionary force tried to establish a foothold on Cuba to unseat Premier Fidel Castro, now described as a Marxist dictator. America’s Central Intelligence Agency (CIA) was reported to have had a heavy involvement with the unsuccessful operation.

On October 22, 1962, as Russian ships approached the Caribbean Sea,

the President declared a naval and air quarantine of Cuba, an action supported both by the Organization of American States (OAS) and NATO. The basis of the quarantine was the supply to Cuba by Russia of “offensive” rather than “defensive” weapons.

These were very trying days as the world’s two superpowers seemed poised for a nuclear confrontation. On October 24 a Russian tanker was stopped, then allowed to proceed, and on October 26 the other Soviet vessels reversed course and the world breathed easier. The President later said words to the effect that there we were, eyeball to eyeball, and they (Russia) blinked.

The tensions created by the Cuban situation led to worldwide demands for the ban or control of nuclear weaponry. That Russian ships reversed their course was later attributed to a negotiated trade-off wherein the U.S. agreed to remove 15 Jupiter missiles (called obsolete by some) from Turkey. Interestingly, following this crisis, the hotline to the Kremlin was installed.

Premier Khrushchev denounced the U.S. action as “piratical” on October 24, but the next day Ambassador Adlai E. Stevenson presented aerial photographs to the United Nations that showed USSR developments in Cuba. Subsequently, on October 28 the Soviet Premier agreed to halt missile launching base construction and to remove the missiles (subject to United Nations inspection); the U.S. quarantine was lifted (October 29), and the U.S. Naval Blockade was lifted (November 20).

#### The Berlin Wall

On August 13, 1961, the East German government (The German Democratic Republic — GDR) closed all border entrances and crossing points to West Berlin and two days later began construction of a concrete block wall along the 25-mile border with West Berlin. The presence of the wall (it still stands) again heightened East-West and worldwide tensions: there were publicized incidents of East Germans and East Berliners’ attempts to escape to the West.

#### The Vietnam War

The previous chapter, Korea to Vietnam — The Fifties, describes the origins of the Vietnam War, a war which consumed America throughout the 60s

and which led to unrest and civil strife heretofore unseen in the U.S. The member nations of the Southeast Asia Treaty Organization (SEATO), which was established in 1954, included France, and since South Vietnam originally chose to stay within the French Union, it continued to receive support from the U.S. in the form of supplies, military aid, and through the presence of military advisors for training purposes.

Beginning with the President’s declaration of American support for the independence of Vietnam in 1961, U.S. involvement in Vietnam, Thailand, and Laos escalated during the 60s. By March 1969 combat troops in South Vietnam numbered 541,000 and on June 8, 1969, newly elected President Richard M. Nixon met with South Vietnam President Thieu at Midway Island to announce the start of U.S. troop withdrawal and a new “Vietnamization Policy.” The war ended in the 1970s.

#### Other Worldwide Events

Other world events in the 60s had ramifications for the U.S. procurement community: revolution in the Congo, a break in Sino-Soviet relations, the formation of the European Common Market (ECM) in 1961 (our commerce, trade, and tariff laws and regulations are still determined in part on the basis of what the ECM decides to do), U.S. opposition to admitting Communist China to the UN, and the establishment of the Organization of African States in February 1962.

In the area of emerging technology, France exploded its first atomic bomb over the Sahara (February 13, 1960) and continued atmospheric testing over Africa and in the Pacific for years to come. The Peoples Republic of China shot off its first atomic bomb from a guided missile (October 1966) and exploded its first hydrogen weapon in June 1967.

Hostile and aggressive actions were promulgated among several nations during this period in world history: the six-day Arab-Israeli war broke out on June 5, 1967, and the Suez Canal was closed; North Korean patrol boats seized the U.S.S. Pueblo, a navy electronics intelligence ship, in the Sea of Japan on January 23, 1968; the USSR invaded Czechoslovakia in August 1968, and on November 17, 1969, America and

the USSR sat down in Helsinki for the first Strategic Arms Limitation Treaty (SALT) talks.

#### Laws, Regulations, and Government Organization

During the 1960s Congress took an increasing role in the procurement process, mandating by law much of which had historically been an executive regulatory/procedural process. The driving concerns were the war in Vietnam, the often referred to "space race," and the development and testing of atomic and thermonuclear weapons and the missile capability to deliver them by many nations. The 60s would see a continuation of the cold war, yet other things demanded attention.

- On March 1, 1961, the President signed the Executive Order (EO) creating the Peace Corps. Enabling legislation would be signed on September 22.

- The Alliance for Progress for Latin America was established by the Charter of Punta del Este in 1961, providing among other things the stabilization of prices of basic exports and the acceleration of economic growth. The American contracting community was relied upon to assist in this endeavor.

- The Foreign Assistance Act of 1961, PL 87-195 as amended, provided \$4.3 billion for military assistance and economic programs. It also restricted the expenditure of funds for procurements outside of the United States except under certain circumstances. Under the act the International Cooperation Administration was abolished and the Agency for International Development (AID) was created under the State Department. AID does not provide military assistance but it does provide grants and loans for nonmilitary procurements by foreign governments.

- The Armed Services Procurement Act was amended by PL 87-653 in 1962. The amendment required contracting officers to conduct oral or written discussions with all firms who were within a "competitive range." It further required the inclusion of a clause in negotiated contracts exceeding \$100,000 to provide for price reduction in the case of defective pricing data and for the full disclosure of all "current, complete, and accurate" cost and pricing data.

This became known as the "Truth in Negotiations" law and applied to DOD, NASA, and the Coast Guard.

- The Work Hours Act (1962) had application to contracts not subject to the Walsh-Healey Act and provided for the payment of overtime for hours worked in excess of eight in one day and 40 in one week.

- The "Christian Doctrine" evolved in 1963 when the Court of Claims held that when a clause is mandatory by regulation, it is to be presumed to be in the contract even if not actually present. The case, *G. L. Christian and Associates v. United States*, 160 Ct. Cl. 1 (1963), involved the absence of a Termination for Convenience Clause in Christian's contract. Much has been written on this milestone decision.

- The Small Business Administration (SBA) was literally reorganized by the Small Business Act of 1963. The SBA has the authority to determine if a firm is a small business on the basis of size standards, by the number of employees, or by annual dollar volume, depending upon the industrial classification of the firm; to issue certificates of competency (COCs); to set aside certain procurements (total, partial, or combinations thereof) for small business; and to issue procedures aimed at increasing the award of subcontracts to small business.

Made permanent in 1958 by an amendment to the act of 1953 which created it, the SBA's history traces back to the 1930s and 1940s and predecessor organizations. Interestingly, at one time the American Motors Corporation with its thousands of employees was classified as a small business because it was dwarfed by the giants of the automotive industry.

- President Johnson signed the historic and far-reaching Civil Rights Act on July 2, 1964. It required, with respect to government contracts, the inclusion of a clause to provide equal employment opportunities for minorities; the clause would be presumed to be present whether it was or not.

This was followed by EO 11246 (October 24, 1965), prohibiting employment discrimination on the basis of race, creed, color, or national origin and by EO 11375, prohibiting discrimination on account of sex; EO 11741 prohibited discrimination on account of age. The 1970s saw specific legislation

enacted relative to discrimination regarding age, handicapped persons, disabled veterans, and the establishment of preferences for Vietnam Era veterans.

EO 11246 established the Office of Federal Contract Compliance (OFCC) under the Department of Labor, together with requirements for Government Contractor Affirmative Action Plans (AAPs), for reports, and for compliance reviews to be conducted by the OFCC. Noncompliant contractors would be ruled ineligible for other awards of government contracts until satisfying OFCC examiners that remedial compliance actions were underway.

The EO also abolished the President's Committee on Equal Opportunity, which had been established earlier under President Kennedy with his "Partners in Progress Program." The law was later interpreted to have application to any recipient of federal funds, not just contractors but grantees, and even to academic institutions accepting students under federal loan grants.

Equal opportunity initiatives in employment and contracting can be traced to three EOs issued by President Truman in the 1940s. Those orders eliminated discrimination in the military services, in the civil service, and in awarding financial housing assistance to new housing projects having racial or religious restrictions. President Kennedy issued an EO in March 1961 requiring equal opportunity by the government and its contractors to housing built with the assistance of government funds (November 1961).

- On August 20, 1964, the Economic Opportunity Act was signed. This was the first of President Johnson's famed "War on Poverty" programs — to coordinate or establish such activities as the Job Corps, Neighborhood Youth Corps, Volunteers in Service to America (VISTA), community action programs, and a Head Start program. Again, the implementing organizations relied in large part on the American contracting community. The Office of Economic Opportunity (OEO) was created.

- In 1965 a milestone decision was handed down from the Court of Claims on *Wunderlich Contracting Co. v. United States*. The case dealt with specifications on a government construction project — relative to the absence of supports for certain electrical

equipment. Wunderlich argued that the supports were not a part of the drawings or specifications. The court held for the government on the basis that its specifications referenced the National Electrical Code and that the code provided the requirement for such supports.

- The Service Contract Act (1965) provided for the payment of minimum wages and the observation of certain safety and health requirements in the performance of government contracts. The act is administered by the Secretary of Labor.

- The DOD issued Acquisition Directive 3200.9 on July 1, 1965, which required performance of the concept formulation and contract definition phases before the start of engineering development on major programs.

- In September 1965 the Department of Housing and Urban Development (HUD) was created, with a Cabinet-level secretary.

- The government "Contracting Out" policy, Circular A-76, was issued in 1966, and is now under the auspices of the Office of Management and Budget (OMB). The policy deals with the performance of commercial activities and reliance on the private sector as opposed to the establishment or use of in-house organizations by the government. Its publication was preceded by Bureau of Budget Bulletins (BOB) in 1955, 1957, and 1960.

- The General Services Administration was given total government control over the use of computers and general purpose automatic data processing equipment (ADPE) by PL 89-306 (1965).

- The Department of Transportation (DOT) was established on October 15, 1966 (PL 89-670), and commenced operations in 1967. The fourth largest of the departments, DOT has almost 90,000 employees and is fifth in terms of budget or expenditures. Its functions eventually included the Federal Aviation Administration (FAA), the Federal Highway Administration (FHA) (transferred from Commerce, then the Bureau of Public Roads), the Federal Railway Administration (FRA), the Coast Guard (transferred from Treasury), the St. Lawrence Seaway Co., and the National Transportation Safety Board (NTSB). The Urban Mass Transportation Administration (UMTA), then a function of HUD, was formed later. Economic

and regulatory functions were performed outside of the department by such organizations as the Interstate Commerce Commission (ICC), the Civil Aeronautics Board (CAB), and the Federal Power Commission (FPC).

- What we today call Foreign Military Sales (FMS) were established by the Foreign Military Sales Act of 1968, PL 90-629 (now known as the Export Control Act of 1976, PL 94-329). These acts authorize the sale of unclassified articles and services. DOD executes the procurement with the U.S. contractor, takes title, and "resells" to the foreign government which has assured against loss by making funds available in advance. The settlement of Iranian FMS claims and how we got there will be discussed in a subsequent article.

The FMS acts prohibit the export of major defense equipment under any contract exceeding \$25 million to a nation other than a NATO ally unless otherwise authorized. DOD is also authorized to enter into agreements containing "offset provisions" enabling foreign contractors to compete for DOD procurements without being restricted by the Buy American Act.

- The Commission on Government Procurement (COGP), originally proposed in 1966, was established by the 91st Congress (1969-70) in PL 91-129; so too was the Cost Accounting Standards Board (CASB), PL 91-379. Activities of these organizations will be discussed in the next part of this series.

- In November 1969 President Nixon put a ban on the production of chemical and biological warfare agents.

#### The Technology Explosion Continues

Of all of the events of the 1960s, those which most captured the imagination of mankind were those related to the exploration of outer space. Developments of nuclear energy and nuclear weapons, missiles and satellites, and electronics continued on an exponential scale. While attributed to the government, they were the product of the government contractors.

#### Manned Space Exploration

It began with the orbital flight of

USSR Cosmonaut Yuri Gagarin in the Vostok I on April 12, 1961. Mercury was the first of a trio of American programs to attain the objective of landing on the Moon. Astronaut John Glenn (now a Senator from Ohio) orbited the Earth three times on February 20, 1967, in the Mercury capsule named Friendship 7. The program concluded with Gordon Cooper's 22-orbit flight in Faith 7, May 15-16, 1963. Mercury developed the capability to put an astronaut into Earth orbit and recover him. It was boosted into orbit by the Atlas, an Air Force-developed launch vehicle.

The second program, called Gemini, involved two astronauts in each manned mission. Gemini demonstrated rendezvous and docking capability with a target vehicle (Agena), essential to a Moon landing and return, and Extra Vehicular Activity (EVA) with an astronaut performing functions outside of the ship. Gemini was launched by the Titan II, also an Air Force-developed booster. The program involved ten manned flights and concluded with the splashdown of Gemini 12 on November 15, 1966.

The third program was designated Apollo and involved three astronauts in each mission. Apollo was launched by Saturn, a NASA-developed booster, and carried a moon lander; Apollo 7, an Earth orbital mission on October 11-12, 1968, was the first U.S. manned space mission since the flight of Gemini 12. Apollo 8 (December 21-27, 1968) made the first historic voyage to the Moon, orbited it ten times, and returned to Earth. It was followed by Apollos 9 and 10 before the dramatic landing on the Moon by the Eagle from Apollo 11. Later, in November, the LEM Intrepid would set down on the surface of the Moon from Apollo 12, the Yankee Clipper.

#### Unmanned Space Exploration

A variety of outer space probes and satellites were launched in the 60s: Echo I was put into Earth orbit (August 12, 1960); a Thor-Able-Star injected three satellites into orbit (June 29, 1961), the first triple launching in history; a Ranger IV probe crashed on the dark side of the Moon (April 26, 1962); Telstar I, transmitting live telecasts, was put into orbit (July 10, 1962);

and Mariner IV was launched toward Venus (August 14, 1962) and transmitted data about the planet for 42 minutes (December 14, 1962).

On October 16, 1963, the Air Force launched two satellites (Vela Hotel) into deep space Earth orbit to detect violations of the nuclear test ban treaty signed between America, Britain, and Russia in Moscow earlier. The negotiations, started in Geneva in January 1962, were broken off over the issue of a monitoring/verification system.

There is not enough room, or any particular reason to trace all of these

events; they were, however, the achievements of the American contractors. Names such as Pioneer, Explorer, Ranger, Mariner, Surveyor, and Viking became household words, as would the names of many other satellites launched by the Air Force and NASA which involved meteorology, environment, communications, defense, etc.

#### Other Technology

The USSR conducted thermonuclear testing at Novaya Zemlya (October

1961) and the U.S. at Johnston Island (July 1962) and Christmas Island (April 1963) before enactment of the Test Ban Treaty. The Navy performed its Sealab Program in October 1965 with men living 205 feet under water for periods up to 15 days.

The technology explosion and the cold war continued into the 1970s. Congress became ever more involved in matters relating to government procurement.

## America Explores the Solar System — The Seventies

**T**he tension in the air was so thick you could cut it with a knife. The date: November 13, 1971. The NASA, JPL, and contractor engineers, scientists, and mission support personnel gathered at the JPL Operations Control Center in Pasadena, California, awaiting the signal that the unmanned Mariner 9 spacecraft, launched some five and one-half months earlier, was successfully inserted into orbit around Mars. The roars and cheers of heady success rang throughout the center: it was the first orbit of another planet in our solar system. By October 1972 Mariner 9 returned 7,200 pictures and mapped the entire surface of Mars. The exploration of the inner and outer planets of the solar system was the accomplishment of a team composed of the American government and its contractor and sub-contractor community.

#### Another Restless Decade

The international scene in the decade of the 70s could hardly be described as any less tumultuous than the preceding ten years. We continued to reside in a world beset with wars, rebellions, political and ideological differences, and rampant inflation. The cold war between America and its treaty allies on the one hand and the USSR and its Warsaw Pact allies on the other continued unabated. The major powers were as far apart as ever in trying to limit the placement of strategic arms.

Domestic tensions eased slightly with the conclusion of the war in Southeast Asia, although early in the decade America went through the trauma of having its 37th president, Richard M. Nixon, resign from office.

During the 70s Congress devoted much of its time and effort to legislation which affected the procurement process. Because of inflation, the budgets for national security, domestic programs, and foreign aid, both military and nonmilitary for our western allies, grew at unprecedented rates. The na-

tional debt grew to a new high. Throughout this hectic decade the government relied heavily on both its procurement work force and the American contracting community to assist with its national security missions and domestic programs and with foreign aid in an attempt to achieve some stability.

One need only look at the headlines of the period to fully understand what America was confronted with on both the international and domestic scenes.

**The Vietnam War.** U.S. troop reductions started in the early 70s. The peace agreement to end the war in Southeast Asia was initiated in Paris in January 1973 and a cease-fire signed. The last American troops left in March although bombing continued in Cambodia. Two years later South Vietnam collapsed and the Communist North entered Saigon. All Americans were evacuated from the South by the end of April 1975. Two weeks after that Cambodia fell to the Communist-dominated Khmer Rouge.

**Arms Control and Test Ban Treaties.** Strategic Arms Limitation Treaty (SALT) talks began in 1969. SALT I dealt primarily with defensive weapons (Anti-Ballistic Missiles — ABMs) and a limitation on the number of sites. The treaty, signed in 1972, did include an interim agreement limiting offensive weapon deployment for five years but ran afoul of the principle of independent verification of treaty compliance.

In June 1979 a second round of SALT talks was concluded in Vienna between President Carter and Soviet President Brezhnev. SALT II provided for certain reductions, new limits on Inter-Continental Ballistic Missile (ICBM) and Submarine Launched Ballistic Missile (SLBM) launchers with sub-ceilings on Multiple Independently Targeted Re-entry Vehicle (MIRV-ed) warheads, and a variety of rules for easier treaty compliance verification. Nevertheless the Senate identified many disadvantages and refused to ratify the agreement.

Two nuclear testing/control agreements also were signed during the 70s. In September 1971 an agreement was executed to modernize the "hot line"

between Washington, D.C., and Moscow and establish procedures to prevent the accidental start of a nuclear war. In 1974 the Threshold Test Ban Treaty was signed limiting underground tests to a maximum explosive force equal to 150 kilotons of TNT. Two years later the same limit was placed on using nuclear devices to excavate canals or reroute the course of rivers.

Other conflicts during the decade sent reverberations around the globe. Having been seized in a coup by Col. Mu'ammar Kadafi, Libya became the base for many terrorist activities against the United States and the western nations. In 1970 riots and civil strife again broke out in Northern Ireland, causing England to suspend the provincial government there. The Yom Kippur War erupted (1973) when Egypt invaded Israel across the Suez Canal and Syria moved into the Golan Heights; Iraq and Jordan subsequently joined with Egypt and Syria. The United States, a supplier of military equipment to Israel, put its forces on a worldwide "precautionary alert" for possible Soviet intervention. Rioting erupted in Iran (1978) and led to the overthrow of the pro-American Shah; "students" seized the American embassy in Tehran (1979) and took some 60 persons hostage. A massive Russian force invaded Afghanistan (1979) and established a puppet government. The Soviet action led to an American grain embargo against the USSR.

A number of diplomatic events of the decade also were significant. The Peoples Republic of China was admitted to the United Nations and Nationalist China was expelled (1971). President Nixon's sojourn to meet with Chinese leaders (1972) was the first visit to China by an American president. Official diplomatic relations were established, bringing an end to mainland China's long isolation from the West. The United States, USSR, and England were among 70 nations to sign a convention (1972) to outlaw biological warfare weapons and destroy their stockpiles.

Moscow was the site of a visit by President Nixon in 1972 for a summit

meeting with President Leonid Brezhnev and Premier Kosygin. In addition to the ABM treaty, an agreement was signed for a joint US-USSR manned spacecraft flight involving a linkup of the two craft in 1975.

### Domestic Crises

Wage and price controls were imposed at two different times in the decade by two different presidents. In an attempt to control wage increases, President Nixon had earlier suspended the provisions of the Davis-Bacon Act (construction; prevailing wages) but reinstated it by an Executive Order (EO) in March 1971. In August 1971 Nixon announced a "new economic policy" and placed a 90-day freeze on wage/price increases. Nixon established a Price Commission, a Pay Board, and a Cost of Living Council to seek voluntary compliance and to impose sanctions where necessary. In December he signed the Economic Stabilization Act of 1971, which gave him authority to control wages and prices until April 30, 1973.

In May 1972 wage and price controls were lifted, however, for business or government units employing 60 people or fewer. In January 1973 all mandatory wage and price controls were ended except for those applying to the food, health care, and construction industries, and these limits ended in 1974 when the president's authority under the Economic Stabilization Act of 1971 expired. In November 1973 the president asked Congress to pass an Emergency Energy Act limiting auto speeds to 55 mph and imposing year-round daylight saving time. Price controls in the petroleum industry remained subject to limitations pursuant to the 1973 Emergency Petroleum Allocation Act.

In October 1978 President Carter stated that he would not institute a mandatory wage and price control program, preferring that participation in such a program be voluntary. In November 1978 he established (EO 12092) a Council on Wage and Price Stability (COWPS), setting forth guidelines and establishing reporting requirements from the nation's businesses and contractors which were required to certify their compliance. In May 1979 COWPS was extended; President Reagan's very first act in office was to abolish the

program, because it had not effectively acted to control inflation, which had risen to an all-time high.

### The Energy Shortage

In January 1972 five Middle Eastern nations formed a bloc called the Organization of Arabian Petroleum Exporting Countries (OAPEC). Later other countries, including Indonesia and Venezuela, joined the bloc and the name was changed to the Organization of Petroleum Exporting Countries (OPEC). The purpose of the bloc was to control oil production and regulate prices; this led to the oil shortage of 1973-74 and long lines of cars at gas stations. A much-discussed rationing system was never implemented.

Another shortage occurred in 1979 as the OPEC cartel was successful in driving oil prices to a record high. The United States embarked on a policy of energy self-sufficiency, initiating development of oil and natural gas reserves on Alaska's North Slope in 1971. An 800-mile trans-Alaskan oil pipeline got the go-ahead in 1972. Construction started in March 1975 and the pipeline opened in June 1977. Much research was performed on alternate energy sources and the United States began stockpiling crude oil in salt domes along the Louisiana and Texas coasts, called the Strategic Petroleum Reserve (SPR).

### Major Procurement Innovations

The decade of the 70s witnessed many innovations as well as changes in the way the federal government contractor was required to do business with the various agencies of the government. These innovations and changes also added to the responsibilities of the federal procurement force, not just those of the contracting officer but of other government support organizations and personnel.

After World War II the federal procurement process became ever more complex — it is no longer the simple situation of a contractor's contract administrator dealing one-on-one with the contracting officer. It may be said that both sides of the table are bolstered by veritable armies of support organiza-

tions and specialists, depending on the nature and size of the procurements. This support does not disappear at the conclusion of the negotiation or the signing of the contract, but rather persists throughout the performance and the closure of the contract. Much of this support may not be related just to a specific contract, but rather to the company as a whole, or to one or more of a company's government contract business segments.

Three innovations are widely considered to have had the most far-reaching impact; i.e., the establishment of the commission on Government Procurement, the Office of Federal Procurement Policy, and the Cost Accounting Standards Board. The main theme that runs through these is *accountability* by the government contractor subject to examination and audit by the government. Of particular interest is the fact that they all derive from congressional legislation and were not introduced merely as a part of the executive regulatory process.

**Commission on Government Procurement (COGP)** (PL 91-129, November 26, 1969). Such a commission had originally been proposed in 1966 and legislation introduced in subsequent sessions, but a major stumbling block was the makeup of its membership. Congress finally settled on a bipartisan group of 12 members, representing Congress, the executive branch, and the public. The Comptroller General was made a statutory member.

The COGP Report released in December 1972 contained 149 recommendations for improvements of the federal procurement process. Eighty-two of the recommendations could be implemented by executive branch action and 62 required legislative action. Among the recommendations were establishment of an independent, centralized office for governmentwide procurement policy matters, a federal procurement institute for the uniform training and development of government procurement personnel, and a single uniform procurement system for all government agencies.

**Office of Federal Procurement Policy (OFPP)** and the **Federal Acquisition Institute (FAI)** (PL 93-400, August 30, 1974, later amended by PL 96-83). Considerable press was given to the proposed development of a single Uniform

Procurement System (UPS) in the 70s and although the proposals as then conceived were not implemented, the issues and debates concerning the UPS gave impetus to development of the present Federal Acquisition Regulation (FAR), which will be discussed in Part 8 of this series.

**Cost Accounting Standards Board (CASB)** (PL 91-379, August 15, 1970). The avowed purpose of the board was to develop and promulgate cost accounting standards for use by the agencies and contractors to achieve more uniformity and consistency in contractor cost accounting practices. In addition to compliance with the standards required by contract provisions as well as in representations and certifications included with proposals, contractors were also required to disclose their cost accounting practices and agree to accept downward cost adjustments for failure to be consistent with their disclosed practices.

Interestingly, although the legislation that created the board specifically cited negotiated defense contracts, the standards, rules, and regulations have been made applicable to nondefense contracts as well.

### Government Organization

Both the executive and legislative branches continued to organize and/or reorganize to contend with new priorities, manage emerging technologies, and cope with world events that affected America and the western alliance of nations. Some of the more significant organizations created during the 70s are listed below. With the exception of legislative organizations, all procure, to some degree, services and supplies using government or government-regulated contracts or grants.

The Council on Environmental Quality was created in January 1970; the Environmental Protection Agency (EPA) in December. The EPA was then the largest of the regulatory agencies with 9,000 employees. It was ultimately responsible for the initiatives related to clean air, clean water, toxic waste, ecology, and some functions from the Department of the Interior.

The Office of Management and Budget (OMB) was created in May 1970 to absorb functions from its predecessor,

the Bureau of the Budget (BOB). It was also given new management and oversight responsibilities.

The Postal Reorganization Act of 1970 became law in August 1970. It created the United States Postal Service (USPS) in place of the Post Office Department, to be headed by a Postmaster General appointed by a board of governors rather than the president. The new USPS commenced operations on July 1, 1971. It marked the first time since 1789 that a Postmaster General was not a member of the president's cabinet.

The Occupational Safety and Health Act (OSHA) was signed into law in December 1970 (PL 91-596). It authorized the Secretary of Labor to set standards of health and safety for factories, construction sites, farms, and other places of business. It also created a three-member commission to enforce the standards. OSHA compliance became yet another provision of the government contract and places of performance were subject to government inspection. The act incorporated the health and safety provisions of the Walsh-Healy Act and the Contract and Work Hours Act of 1962.

In May 1971 the National Railroad Passenger Corporation, better known as AMTRAK, initiated service on the basis of contracts signed with various carriers, which otherwise would have had to ensure their own independent service for five additional years.

In response to awareness of a growing energy shortage, dependence on foreign imports, and the need to manage fuel allocations, the Federal Energy Administration (FEA) was established in 1973 to make policy and provide guidance. This followed the earlier Arab nation embargo on the export of oil to the United States and other oil importing nations to force prices up, which together with soaring grain prices precipitated a worldwide monetary crisis and economic recession that was the worst since the Great Depression of the 1930s. The president had advised Congress earlier that America, with only 6 percent of the world's population, consumed one-third of the world's energy output and that a very serious energy problem was evident.

The Congressional Budget Office (CBO) was created to support the Congress by the Congressional Budget and

Impoundment Act, also referred to as the Congressional Budget Act, dated July 12, 1974. In addition to creating the CBO the act also provided for a shift in the federal fiscal year to end on September 30 rather than June 30 to allow more time for Congress to deliberate on the budget and have appropriations in place. The act provided for this to begin October 1, 1976, with the addition of a transition quarter to the FY 1976 period which commenced July 1, 1975.

To further deal with the energy crisis Congress passed the Energy Reorganization Act of 1974 (PL 93-438, October 1, 1974). The act dissolved the Atomic Energy Commission and transferred its regulatory functions to a newly created Nuclear Regulatory Commission (NRC). The remainder of the functions, including weapons development, was transferred to a new Energy Research and Development Administration (ERDA).

The Department of Energy (DOE) was created on August 4, 1977 (PL 95-91). It assumed the functions of the Energy Research and Development Administration (ERDA) as well as some others and had cabinet-level status.

The Renegotiation Board, set up in 1951, closed its doors on March 31, 1979.

A new Department of Education was established when the president signed PL 96-88 on October 17, 1979. It too had cabinet-level status. This essentially was a transfer of the education functions out of the Department of Health, Education and Welfare (DHEW), which was redesignated the Department of Health and Human Services (DHHS).

### Legislation, Regulation

The 1970s saw more intervention by Congress into the procurement process through the following major legislative and regulatory events.

- An Executive Order issued February 4, 1970, called for the elimination of all air and water pollution caused by federal agencies. The Clean Air Act of 1970 set a six-year deadline for the auto industry to develop an engine that would be nearly pollution-free. The Clean Air Act was later amended to provide that non-compliant facilities, as cited by the EPA, could not be used in the performance of contracts or subcontracts exceeding \$100,000.

- The Rehabilitation Act of 1973 prohibited discrimination against the handicapped and was considered to be applicable to government contracts even in the absence of a clause.

- The Small Business Emergency Relief Act (PL 94-190) was enacted by Congress in 1975 to provide relief for small businesses performing on fixed-price contracts awarded between 1971 and 1974. This was done because of increasing inflation and the cessation of wage and price controls.

- The Office of Management and Budget issued its circular A-109, Policy for Acquisition of Major Systems, in 1976. It applied to all agencies and emphasized early and continuous communication with Congress. The policy was one of the recommendations of the COGP.

- The Federal Grant and Cooperative Agreement Act (PL 95-224) established a new government procurement vehicle, the Cooperative Agreement. The distinguishing feature among a contract, a cooperative agreement, and a grant was the amount of government control, ranging from heavy involvement in the contract to little involvement in a grant, with the involvement in a cooperative agreement somewhere in between.

- The Inspectors General Act of 1978 created IGs in all agencies except the DOD; a DOD IG was created later. The purpose of the act was to strengthen audit and investigatory controls.

- DOD Directive 5000.35, March 8, 1978, established the Defense Acquisition Regulatory System (DARS) and a Defense Acquisition Regulation (DAR) in place of the Armed Services Procurement Regulation (ASPR), which had been in place since 1949. Many observers felt this was an attempt by the DOD to maintain separate and independent regulatory authority in the face of continuous pressure for a single regulation.

- Authority of the Small Business Agency (SBA) was expanded in 1978 (PL 95-507). One of the main features of the act was that it provided set-asides for disadvantaged businesses.

- The Contract Disputes Act of 1978 (PL 95-563) applied to all contracts entered into after March 1 of that year. The act instituted a single, comprehensive law governing disputes under government contracts. It required that both government and contractor claims

be subject to a final decision of a contracting officer before being taken to a court or board of contract appeals. It also gave the government, for the first time, the right to appeal a board decision to the court of claims.

### Unmanned Space Exploration

Highlighting the technology explosion of the 70s in the minds of many Americans and people worldwide were the sensational achievements related to the exploration of the solar system beyond the earth and moon. Although we continued manned landings on the moon and manned earth orbital missions of ever-lengthening duration, people waited by their television sets for the relay of pictures from the planets.

Pioneer 10 was launched in 1972 on its 21-month, 639-million-mile journey through the asteroid belt to explore Jupiter and its moon Io. The fly-by occurred in December of that year.

Pioneer 11 was launched in spring 1973 for a December 1974 rendezvous with Jupiter and a five-year continuation flight to Saturn after passing within 26,000 miles of Jupiter. The probe passed within 13,000 miles of Saturn and took the first close-up pictures of that planet. The probe had traveled three billion miles on its six-year mission.

Mariner 10 was launched late in 1973 to explore Venus and Mercury. It reached Venus in February 1974 and became the first probe to use the gravity of one planet to approach another, reaching Mercury in late March.

Viking I and II Mars orbiter-lander missions were launched in 1975. Viking I attained Mars orbit in June 1976 and the lander touched down in late July. Viking II achieved orbit in August and its lander touched down in early September. The Viking landers transmitted more than 10,000 pictures with a vivid variety of technical information about Mars before turn-off. The Viking I lander is expected to be reactivated and transmit data through 1994.

Next came the two Voyager planetary probes, each launched in a different trajectory to fulfill a different mission. Voyager 2 was launched first, in late August 1977, to survey Jupiter in 1979, Saturn in 1981, and subsequently to pass Uranus in 1986 and Neptune in 1989. Voyager 1 was launched in Sep-

tember 1977. Both probes surveyed Jupiter in 1979, discovering that the planet had a ring around it, identifying three new moons, and finding an erupting volcano on Io.

The 70s saw new satellites put up by the United States such as two OSOs (Orbiting Solar Observatories), Intelsats (communications), IMPs (Interplanetary Monitoring Platforms), DSCS (Defense communications), FLTSATCOM (Navy communications), and the NASA Seasat. Development began on the DMSP (Defense Meteorological Satellite Program) and the Navstar GPS (Global Positioning System) involving weather and navigation.

### Man in Space

A program to develop the Space Shuttle System got the go-ahead in January 1972. The shuttle was to piggyback a launcher, go into earth orbit, and return like an airplane. This concept was similar to the Dynasoar Program of the early 60s which had the winged return vehicle on top of the launcher like a nose cone.

Manned space missions continued through the Apollo program. In 1970 Apollo 13 returned without making a lunar landing after an explosion knocked out the command module's electricity and oxygen systems. The astronauts returned home using the life support systems of the Lunar Excursion Module (LEM) Aquarius. LEMs from Apollo 14, 15, 16, and 17 set down on the moon in 1971 and 1972. Astronauts from Apollo 17, the last mission of the series, explored the moon's surface for more than 22 hours.

The earth-orbiting Skylab series came next. The first mission spent 28 days in space; the second, 59 days; and Skylab 3 orbited the Earth for 84 days. The Skylabs enhanced the uses of X-ray and ultraviolet photography and a telescope array. The actual laboratory, described by some as an "orbiting boxcar," had been launched in May 1973. By 1979 its orbit began to decay; a reboost/deorbit mission was cancelled. The big vehicle tumbled into the Earth's atmosphere in July 1979. Those pieces which did not burn up on reentry fell into the Indian Ocean and onto western Australia.

The last manned American space flight of the 70s was the historic USA-

USSR Apollo-Soyuz linkup (1975) in earth orbit, the first international manned space mission. America and Russia had signed an agreement to build mutually compatible rendezvous and docking systems for spacecraft. The Space Cooperation Treaty for conducting joint experiments was reviewed in 1977 and allowed to lapse in 1982.

### Missiles, Nuclear Technology

The U.S. began deployment of Multiple Independently Targeted Reentry Vehicles (MIRVs) in its missile silos in

South Dakota in October 1970. At the same time the first Poseidon SLBM was successfully tested in the waters off Florida and Defense Secretary Melvin Laird announced his "fly before you buy" policy. Work began on the Safeguard ABM system involving Spartan and Sprint missiles.

The year 1973 saw the start of ABRES (Advanced Ballistic Reentry System) and AWACS (Airborne Warning Advanced Control System) by the United States.

In 1974 the United States determined to convert 11 Polaris submarines to the use of Poseidon missiles with the balance to be converted to the new

Trident SLBM. The B-1 bomber was first tested in 1975. The contract for production of the Main Battle Tank (MBT), the Abrams, was awarded to Chrysler in late 1976.

Because of the huge size of the federal budget and the prospective deficit and the concerns over trade-offs between appropriations for domestic programs and national security initiatives, Congress would interpose its presence even more in the 1980s. Part 8 will explore the era of the space shuttle and the introduction of the FAR.

## The Era of the Space Shuttle and the FAR — The Eighties

### America Returns to Manned Space Flight

At 7:00 a.m. Florida time on April 14, 1981, the NASA shuttle orbiter Columbia, mounted piggyback on its launch vehicle, roared off the pad at Cape Canaveral on its maiden voyage. It was America's first manned space flight since the USA-USSR Apollo-Soyuz link-up in 1975. The mission, designated STS-1 for Space Transportation System, achieved 36 orbits before landing as scheduled 54 hours later on a dry lake bed at the Dryden Flight Research Center near Edwards AFB in Southern California. The safe landing marked the first manned nonballistic reentry ever performed.

Columbia and the orbiters Challenger and Discovery made 16 more flights between that of STS-1 and mid-1985, with many more scheduled. A fourth orbiter, the Atlantis, has yet to make its maiden voyage. The shuttles performed a variety of scientific experiments, deployed and recovered satellites, and demonstrated in-orbit satellite and instrument repair. By mid-1985 the shuttle orbiters had proved to work almost flawlessly although encountering launch delays and occasional problems with payloads.

The shuttle program rekindled America's interest in manned space flight and rang up a spectacular number of firsts. STS-3 Columbia was the first to be diverted to an alternate landing site, a dry lake bed at White Sands, New Mexico, on March 30, 1982. STS-4 Columbia landed at Edwards AFB, California, on July 4, 1982, the first landing on a paved runway. On April 9, 1983, STS-6 Challenger featured the first space walk (extra vehicular activity — EVA) in nine years. Later in June, Dr. Sally K. Ride became America's first female astronaut in space aboard the STS-7 Challenger.

The STS-8 Challenger saw our first black astronaut in space, L/C Guion S. Bluford. That mission also demonstrated the first night launching from

the Cape and the first night landing at Edwards. The STS-10 Challenger, February 1984, was the first flight launched from the Cape which also returned to land there. Kathryn D. Sullivan became the first American woman to walk in space from the STS-13 Challenger in October 1984. STS-14 Discovery recovered two satellites from space for refurbishing in November. U.S. Senator Jake Garn (R-UT) flew on STS-16 Discovery in April 1985. Challenger lifted off later that month on mission STS-17.

The success of the shuttle fleet through its first 17 missions validated the concepts of aerodynamic reentry and landing from earth orbit into and through the earth's atmosphere. It also validated the concept of a reusable manned shuttle orbiting vehicle, with Challenger flying seven missions, Columbia six, and Discovery four. NASA has indicated that it wants to increase the number of shuttle flights to 24 per year by 1986-87. These include missions for commercial ventures (including foreign organizations) as well as for the Department of Defense (DOD), NASA's biggest customer. Some of the future DOD shuttle flights will originate from the Western Test Range (WTR) at Vandenberg AFB. Because of some of the problems encountered to date, the European Space Agency (ESA) may emerge as NASA's strongest competitor for commercial users.

The shuttle and its components are primarily the products of American manufacture, although the derrick arm in the payload bay is from Canada. The manufacture as well as the experiments and satellites deployed are also those of the American government contracting community, including both industry and academia. In a cooperative spirit foreign experiments, satellites, and astronauts have been flown in the program. At this writing NASA has begun negotiations with the government of Chile to use remote Easter Island in the Pacific as an alternate shuttle landing site.

### The Federal Acquisition Regulation (FAR)

The goal of one single regulation to govern the procurement practices of all federal agencies was finally realized with the issuance of the FAR, effective April 1, 1984. The history of the FAR dates back to recommendation A-10 from the Commission on Government Procurement (COGP) in its 1972 report. The proposed Uniform Procurement System (UPS) is also in the history of the FAR. That system was directed by the Office of Federal Contract Procurement Policy Act Amendments of 1979 (Pub. L. 96-83). The FAR Project was established in January 1978 by the Office of Federal Procurement Policy (OFPP). Development has been in accordance with the requirements of the OFPP Act of 1974 (Pub. L. 93-400) as amended by Pub. L. 96-83. The OFPP Amendments Act of 1983, signed on December 1, 1983, authorized OFPP authority for four years to issue binding procurement regulations when the head of OFPP determined that DOD, NASA, and GSA are unable to agree or fail to issue governmentwide procurement regulations in a timely manner.

Although the FAR replaced the Defense Acquisition Regulation (DAR), the Federal Procurement Regulation (FPR), and the regulations of other agencies having statutory authority to issue such regulations, it provided for the various agencies to issue their own FAR supplements for unique or special circumstances peculiar to a particular agency. Supplements are not supposed to contravene the basic FAR nor was the FAR itself supposed to contain any substantive changes from existing regulations.

The process provides for two councils to be responsible for amending or updating the regulation, portions of which derive from legislation. There is a Defense Acquisition Regulatory Council (DARC) chaired by DOD, to which has been added a representative from NASA, and a Civil Agency Acquisition

Council (CAAC) chaired by GSA. Each council is responsible for various sections of the FAR. The case load and status is tracked by a FAR Secretariat under GSA. If the councils do not agree on one or the other proposed amendment, revision, or addition, the matter is to be referred to the Office of Federal Procurement Policy for resolution.

### Government Organization

The government continued to organize, or perhaps reorganize is a better way to put it, to contend with changing domestic priorities during the first half of the 80s.

The Synthetic Fuels Corporation was created on June 30, 1980 (Pub. L. 96-294), as America continued its quest for alternate energy sources. Interest faded quickly, however, upon realization that we were no longer contending with oil shortages but rather a glut.

The "Superfund," a special budgetary item, was established for the Environmental Protection Agency (EPA) to concentrate upon the cleanup of toxic waste disposal sites throughout the country. Despite a stormy history we still have a Superfund and a priority list of targets scheduled for cleanup. It has since been determined that many federal installations are among the largest contributors to the toxic waste pollution of our environment.

On July 7, 1981, Sandra Day O'Connor became the first woman to be nominated as a justice to the nine-member U.S. Supreme Court. She was confirmed and was sworn in on September 25.

The Maritime Administration was transferred from the Department of Commerce to the Department of Transportation on August 6, 1981 (Pub. L. 97-31).

A revised Federal Court of Appeals for the Federal Circuit and a new U.S. Claims Court were created on April 2, 1982 (Pub. L. 97-164). Called the Federal Courts Improvement Act, this act merged the U.S. Court of Claims and the U.S. Court of Customs and Patent Appeals into a new U.S. Court of Appeals for the Federal Circuit and created a new Claims Court with trial functions. These courts came into being on October 1, 1982. The act also empowered the Claims Court to hear and decide on contract actions prior to award.

The Civil Aeronautics Board (CAB), created as an independent office in 1940, closed its doors on October 4, 1984 (Pub. L. 98-443). The office's remaining function, following airline deregulation, was transferred to the Department of Transportation.

Presently under discussion within the executive branch is the abolition of the Small Business Administration (SBA) as we now know it. Its advocacy functions would be transferred to the Department of Commerce.

### The Way the World Was

Our government reacts to events worldwide. These may be events which affect foreign policy or involve the promotion or preservation of U.S. interests. Reactions are often reflected in legislation or executive branch orders or regulations. Many of these subsequently affect the government contracting process involving new or amended requirements in contracts or regulations to be followed, what can or cannot be exported if you have foreign sales, and the list could go on. Some of the events affecting the world in the first five and one-half years of the 80s follow.

On September 22, 1980, Iraq invaded Iran. That war is still being fought today after large losses of life on both sides. The international consequences dealt with the threat to the supply of oil from the Persian Gulf. In 1983 Iran threatened to blockade the Strait of Hormuz at the mouth of the gulf. American naval units intensified patrol activity around the strait since a blockade also cut off Saudi Arabia exports to the West.

The oil shortage of 1979 became a glut in 1980. OPEC cut back on its production and the importing nations reduced their requirements through conservation and further reliance on alternate energy sources.

The exiled President of Nicaragua, Anastasio Somoza Debayle, was assassinated in Paraguay on September 17, 1980, purportedly by Marxist Sandanistas who had overthrown the Somoza government. The issue of how to deal with a Cuban/Soviet-supported government in Nicaragua and the internal forces which oppose it is currently under debate in Congress. The President has embargoed trade with the Central American nation.

Argentina landed some 12,500 troops on the British Falkland Islands on April 2, 1982. The little islands, cold and windswept, just off the tip of South America in the South Atlantic Ocean lie about 340 miles east of the Strait of Magellan. Possession of the islands, called the Malvinas by Argentina, has been in dispute since 1833. England and Argentina have been negotiating the issue since 1966. The islands contain a mostly English population of 1,800 people primarily engaged in raising sheep. England organized an immediate response by launching its largest naval force in decades on an 8,000 mile voyage to "retake" the Falklands. They landed in force on May 21 and Argentina surrendered and signed a cease-fire agreement on June 14. The significance of this otherwise tiny confrontation was the demonstration of new weapons systems such as the "Jet Jump" Harrier airplane, the French-built Exocet missile, and the use of satellite reconnaissance to identify force deployment and location. It also demonstrated the vulnerability of aluminum-clad naval ships.

On June 6, 1982, Israeli armed forces crossed northward into Lebanon with the announced mission of driving out the Palestine Liberation Organization (PLO), and immediately clashed with Syrian troops. A subsequent United Nations peacekeeping force made up of military detachments from America, France, and Italy, suffered significant losses at the hands of terrorists and were withdrawn. At this writing Israel is making a guarded withdrawal from Lebanon where civil strife continues.

American Marines and Army Rangers, supported by a small contingent of forces from six Caribbean nations, occupied the small island of Grenada on October 25, 1983, successfully ousting a Cuban-supported government and a Cuban military presence. The concern was that Grenada would become a staging base for resupply and reinforcement of Marxist revolution in Central America. Hostilities ceased on November 2 and a troop withdrawal was commenced.

The war between the USSR and the Afghanistan resistance, the Mujahedeen, which started with the Russian invasion in late 1979 to set up a Marxist puppet government in Kabul, continues unabated. The success of the resistance of Afghan tribesmen against a nation

possessing modern weaponry and technology and also accused of using biological and chemical warfare has amazed many. America has been supportive of the plight of the resistance and the refugees, more than three million of whom are presently encamped in neutral Pakistan.

We still live in a troubled, restless world and the first half of the decade of the 80s was not unlike that which we have experienced since the end of World War II. The Cold War between the East and the West goes on and there are local wars, civil wars, coups and attempted coups, terrorism, famine and economic deprivation, and what we sometimes merely call "civil strife." In addition to the events discussed in the preceding paragraphs, hardly any continent on our globe remains unaffected or untouched by these troubles. Southeast Asia is still in turmoil; civil war has all but been declared in Sri Lanka (Ceylon); the Sikhs and Hindus are fighting each other in India; the Middle East is still afire; famine, drought, and war are rife throughout northern and central Africa and in the "Horn" (Ethiopia, Eritrea); conflict is still being waged in southern Africa (Angola, Uganda, Namibia); El Salvador in Central America is beset by a purported Cuban-fomented revolution; and one could go on — Northern Ireland, Poland, etc. All of these circumstances require a reaction from America as the leader of the western world. America's reaction, however, is for the most part dependent on its industrial base, much arranged through government contracts or government-to-government agreements, and in the case of contracts or agreements, upon the regulations established under which that base will operate.

#### Legislation, Regulation, and Related Events

The 80s continued much like the 70s with significant congressional intervention continuing relative to the acquisition process and a host of regulations and directives issued by the executive branch. Highlights of the 80s include the following.

- The General Accounting Act of 1980 extended statutory authority of the Comptroller General's subpoena powers to federal government contractors, sub-

contractors, and other nonfederal persons. The provisions of the act have been deemed to exceed what the General Accounting Office (GAO) is entitled to under the standard Examination of Records clause.

- The Paperwork Reduction Act (Pub. L. 96-511), signed on December 11, 1980, established an office in the Office of Management and Budget (OMB) to oversee federal agency requests for information from the public, including contractors.

- The General Agreement on Tariffs and Trade (GATT) Government Procurement Code became effective on January 1, 1981. This multilateral trade agreement was ratified in April 1979 and implemented through Pub. L. 96-39. It allows equal access to a U.S. government procurement by a foreign supplier and constitutes a broad waiver to the Buy American Act. It applies to DOD procurements only in a limited way.

- On January 29, 1981, President Reagan issued Executive Order 12288, terminating the Wage and Price Regulatory Program initiated under President Carter in November 1978. The White House Fact Sheet indicated that the private sector would have no remaining responsibility for maintaining records or for submitting reports, and that confidential business data that had been submitted would be destroyed.

- DOD Deputy Secretary Frank Carlucci announced his 32 initiatives for "Improving the Acquisition Process" on April 10, 1981. The initiatives commanded much attention and led to streamlining the total process, particularly the acquisition of major weapons systems.

- On August 5, 1981, the President reasserted his authority when he quickly discharged striking members of the Professional Air Traffic Controller Organization (PATCO), who went on strike August 3, 1982.

- DOD Directive 5000.42, Policy for Follow-Up on Contract Audit Recommendations, was issued August 31, 1981. It required a senior official to endorse or override any differences between a contracting officer (CO) and the auditor from the Defense Contract Auditing Agency (DCAA). It was considered by many to impair the decision-making authority of the contracting officer. The directive was replaced by 7640.2 on December 29, 1982, in an

attempt to address industry concerns. Many still deem the revised directive to constitute a basic erosion of the CO's authority.

- Arbitration began at The Hague, Netherlands, in September on claims by American companies that did business in Iran before the 1979 revolution and the ouster of the Shah. Earlier, on January 20, 1981, the U.S. had agreed to the release of \$8 billion in frozen Iranian assets in exchange for the release of 52 American hostages. This followed a failure by a United Nations Inquiry Committee in early 1980 and an aborted rescue attempt in late April of that year.

- The U.S. Government initiated Project Exodus in March 1982. This project attempts to halt the export of high technology products which might be ultimately diverted to Warsaw Pact nations. Responsible for project implementation are the U.S. Customs Service (Treasury), in conjunction with the State Department, which is also responsible for the regulations titled International Traffic in Arms (ITAR) and the granting of related export licenses, and the Department of Defense. Project Exodus is with us today and we can look for more "fine-tuned" controls.

- The Prompt Payment Act (Pub. L. 97-177) became effective on May 21, 1982. The act requires the federal government to pay interest when making late payments on its debts, including contractor billings and claims. The act provides, in the case of government contracts, for payments to be made on the contractually required date or 30 days after the receipt of a proper invoice, with late payment interest to be established at a rate set by the Secretary of the Treasury. Industry was concerned that this would lead to 30-day delays in payments normally received, and this has been the case in some instances. Despite criticism, DOD has for the most part adhered to its normal payment cycle even where specific payment terms are not spelled out in the contract.

- Strategic Arms Reduction Talks (START) between the U.S. and the USSR commenced in Geneva, Switzerland, on June 29, 1982. To date the on-again, off-again talks have not resulted in any progress. So far the U.S. has lived up to the unratified SALT II treaty but there is growing opinion that America should proceed on its own.

- The OFPP issued Policy Letter 82-1 on July 1, 1982 (effective August 30), governing the debarment and suspension of contractors doing business with the executive branch. It provided for the listing of all contractors also found ineligible for violations under equal employment opportunity and various other socioeconomic and environmental laws.

- On April 19, 1983, the Supreme Court held in *Bousher v. Merck & Co.*, that the GAO (Comptroller General) could review the direct cost records of a contractor performing under a fixed-price negotiated contract but had no right to examine indirect cost records, except as they might be attributed to the particular contract. This decision has been interpreted by many as creating further confusion rather than resolving the issue of "Examination of Records" with clarity.

- The Department of Defense Appropriation Act of 1984 (Pub. L. 98-212), enacted December 8, 1983, contained a warranty provision under which defense contractors and subcontractors had to guarantee in writing that their systems and components were designed to meet government requirements and were free from defects in materials and workmanship which would cause a failure to meet requirements. A blanket exception suspending the requirements for 90 days was issued and subsequently, in March 1984, a DOD policy guidance memorandum was issued which exempted cost-reimbursement contracts from the requirement.

- The Competition in Contracting Act of 1984 (CICA) was contained in the Deficit Reduction Act (Pub. L. 98-369). The act reduced the number of exceptions permitting the use of noncompetitive procurement to seven circumstances. Noncompetitive procurement is allowed: 1) when property or services are available from only one source, 2) when there is unusual and compelling urgency, 3) to maintain a facility for national emergency or essential research and development, 4) when required by an international agreement, 5) in compliance with a statute specifically requiring procurement from a designated source, 6) when disclosure of needs would compromise national security, and 7) if the head of the agency determines it is in the public interest and provides Congress with 30 days' advance

written notice. In some instances the DOD is still required to seek competition even if one of the above exceptions applies. It has been announced that because of CICA more than one-third of the FAR will have to be rewritten.

- The Grace Commission issued its final Report to the President on January 16, 1985. The commission of volunteer businessmen and labor leaders was appointed by the President in 1982 with a mission to investigate the entire federal bureaucracy and seek out every possible savings opportunity. In its final report the commission made 2,478 specific recommendations which it estimated would save \$424 billion over the next three years. Many of the recommendations dealt with government acquisition of services and supplies, including major systems and spare parts. Skepticism has greeted many of the commission's savings proposals.

We are now in the middle of 1985. The media continue to report spare parts pricing scandals, excessive overhead charges, billing for unallowable costs, and defective parts and systems. The government has held up the payment of billings. Corporate officers are required to certify invoices to the DOD which contain overhead charges. Companies or major business segments have been suspended from doing business with the government, even if only temporarily. And Congress is preparing to try to accomplish by law what it perceives to be a breakdown of the regulatory system.

#### Technology Expansion Continues

The early 80s did not witness any surcease in technology development in America or in the world. Technological development continued at an unabated pace.

In addition to the manned space shuttle program, the American unmanned solar planetary program continued to ring up successes. Voyager I flew by Saturn on November 12, 1980. Voyager II made its Saturn fly-by on August 25, 1981. Both passes contributed new scientific knowledge. The two probes are now headed toward the outer planets of Uranus and Neptune.

Mainland China launched its first Inter-Continental Ballistic Missile (ICBM) on May 18, 1980. It flew 6,000 miles from North China into the south

of Kiribati (formerly the Gilbert Islands) in the South Pacific.

Earlier, on February 14, 1980, the Solar Maximum Mission (SMM) was launched by NASA and detected more than 1,000 solar flares by the end of the year. Solar flares emit a tremendous amount of X-ray radiation, which imperils unprotected astronauts in space. On the agenda for a near future shuttle mission is repair of the SMM.

The year 1981 saw a reversal in the so-called "racetrack" basing mode for the MX missile; i.e., moving the missiles under thousands of camouflaged silos, with occasional openings for inspection and verification. Subsequently a "Dense Pack" basing mode came under consideration, as did placement in older Titan II or Minuteman silos, with new "hardening" features. The MX (now called Peacekeeper) goes on in Congress today, both as to the numbers and the deployment or basing strategy. In 1983 the Scowcroft Commission on Strategic Forces urged development of a new small ICBM which has become known as Midgetman.

Operations commenced at Solar One in 1982. Solar One is a 10,000 KW electrical energy generating plant in the Mojave Desert near Daggett, California, north and east of Los Angeles. The installation involves the use of 300 large heliostats or movable mirrors which capture solar radiation for subsequent conversion into electric energy. This test facility was developed by a team of contractors in support of the Department of Energy.

LANDSAT 4, called the most complex and advanced land observation satellite ever built, was launched from the Western Test Range on July 16, 1982. NASA turned over operation of the satellite to the National Oceanic and Atmospheric Administration six months later.

In March 1983 the President called for development of a space-based defense concept against nuclear attack. This is now known as the Space Defense Initiative (SDI) and is popularized in the media as "Star Wars." (See *Contract Management*, January 1985.)

Advancements were achieved on many fronts: computers, integrated circuits, chip technology, and industrial robotics, to name a few. In the major weapons systems arena the B-1B strategic bomber was given the go-ahead

and development of an antisatellite system (ASAT) was announced. This system employs an F-15 jet aircraft carrying a two-stage missile. Research and development of the Stealth bomber and the D-5 submarine launched ballistic missile (SLBM) were continued.

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