
Defense Industrial Cooperation

by

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INTRODUCTION

Turkey has continued to maintain an active armaments cooperation program with the United States for many years. The Defense Industrial Cooperation (DIC) Supplementary Agreement #2 to the U.S.-Turkey Defense and Economic Cooperation Agreement (DECA), signed in 1980, provides the framework for defense industrial cooperation activities. This DIC agreement commits the U.S. to help improve Turkey's defense posture and build its industrial base through defense industrial cooperation, involving research, development, production, procurement, and logistics support. However, as the word cooperation implies, the agreement calls for each country to facilitate the mutual flow of defense procurement and technological know-how in the field of defense. Both countries are also to provide opportunities for each other to compete for the procurement of defense equipment and services; to promote and facilitate the coproduction of defense equipment; to support cooperation in defense research and development; and to expand programs of data exchange in defense technologies.

This cooperation was to concentrate in seven areas: production of anti-armor; production of fuzes; production of rockets; improvement of aircraft manufacturing/repair capabilities and facilities; production of propellant powders and explosives; construction of a modern frigate and improvement of overhaul capabilities; and tank upgrade program. In 1982 an eighth area was added—the improvement of helicopter overhaul and assembly.

COOPERATIVE PROGRAMS

Turkey's acquisition organization, the Undersecretariat for Defense Industries (SSM), was established in November 1985 by Turkish parliamentary legislation. The SSM is responsible for establishing and managing the development of major defense projects and industries providing for the continuous modernization of the Turkish Land, Naval, and Air Forces. As an evolving acquisition organization, SSM has been and remains a key customer for defense projects. Since 1986, projects worth approximately \$10 billion have been contracted for or are under evaluation. Many of these projects got their start from the DIC agreement. Some of the projects which have helped to build Turkey's defense industries are discussed below.

F-16 Peace Onyx (PO)

This was Turkey's first and remains its largest co-production program. The program consists of the coproduction and assembly of 240 F-16s, 232 of which will be built in Turkey. This is a \$7.4 billion program continuing until the year 2000. A direct result of this program was the creation of two Turkish-American joint venture companies, TUSAS Aerospace Industries (TAI) and TUSAS Engine Industries (TEI). TAI, in partnership with Lockheed, manufactures 70 percent of the airframe, and installs all equipment and avionics for F-16s built in Turkey. TAI also entered the commercial market and is involved in co-production programs of aircraft with CASA of Spain and Agusta of Italy. TEI, in partnership with General Electric, began as, and still is, the supplier of F-110-GE-100 engines for the Peace Onyx program. In addition, TEI currently manufactures, builds, and tests a variety of different aircraft engines and components for both the military and the

commercial market. Both TAI and TEI continue to have a significant impact on the economy and Turkey's industrial base.

Turkish F-16: The start of defense industrial cooperation in Turkey.

M48A5 Tank Modernization

This program, conducted in the TLFC Tank Plant in Kayseri, modernized over 2,100 M48 tanks by adding a 105mm gun, diesel engine, and other improvements. In addition, 760 of the tanks were further upgraded by providing add-on stabilization, a thermal site, laser range finder, and solid state computer. Of particular note is that 61 percent of the spare parts were supplied by the local market and 24 percent were manufactured on site at the depot. The depot also provides on the job training for apprentices from a local vocational school, adding an additional benefit to the community.

Armored Combat Vehicles

This was SSM's first major co-production project. FMC, a U.S. corporation, entered into a joint venture with Nurol of Turkey to co-produce 1,698 Armored Combat Vehicles (ACV) of various configurations in Turkey based on an FMC design. Other U. S. companies directly or indirectly supply parts and equipment in support of the program: Texas Instruments has a contract through ASELAN to produce the optical sights; Alison Transmission and Detroit Diesel are building the power plant; and Cadillac Gage the cupola.

MEKO 200 Frigates

Turkey embarked on this program to improve its antisubmarine, anti-air, and anti-surface ship capabilities. The program calls for eight ships to be built, four in Turkey and four in Germany. The program is currently in its second phase with four ships having been delivered. Of the remaining four, two are currently under construction and two are in the initial design. Even though this is a Turkish-German co-production program, U.S. contractors are providing \$197 million worth of major combat, propulsion, and weapon systems.

Helicopters

ODC Turkey has been involved in several helicopter co-assembly and co-production programs in support of the Turkish Land Forces modernization program. Turkey purchased and assembled 60 UH-1H helicopters. With each phase, an increased number of parts were produced in Turkey. Turkey also purchased 45 UH-60 Blackhawk helicopters. There is a follow-on Direct Commercial Sales program valued at \$1.2 billion in which Turkey plans to coproduce up to an additional 105 Blackhawks. The program is currently on hold due to a lack of financing.

Frigate Co-production

This program is in preliminary discussion with various U.S. ship builders. It would involve the coproduction of approximately six ships at a cost of \$370 million each.

ALQ-178

Loral is co-producing the ALQ-178 electronic countermeasures (ECM) system with the Turkish firm MIKES. This is a key component of the self-protection electronic warfare systems (SPEWS) to be installed on a number of the F-16 aircraft being built in Turkey.

ATACMS

The Government of Turkey is studying the feasibility of entering into a coproduction program for the Army Tactical Missile System (ATACMS) which is fired from the MLRS launcher. The U.S. has agreed in principle to Turkish co-production of selected parts of the ATACMS. The government of Turkey is currently reviewing the draft MOA for this program.

Munitions

Turkey has co-produced several U.S. munitions and is a member of the European co-production consortia for the Stinger surface-to-air missile. This co-production program, like other programs, led to the formation of another Turkish company, Roketsan, adding further to Turkey's industrial base. Roketsan was formed in 1988 and produces rocket motors and propellants for the Stinger.

ACQUISITION TRAINING

A major effort was undertaken in 1990 by ODC Turkey and SSM to develop and implement a 3-5 year acquisition training program, modeled after the U.S., for SSM's entry and mid-level acquisition managers. The program encompasses training at U.S. DoD acquisition schools and acquisition training conducted in Turkey by mobile training teams from these same schools. Acquisition training opportunities for these managers for this type or caliber of training did not exist prior to this program. Over 200 civilian and military personnel received training in Material Acquisition Management, Configuration Management, Systems Engineering, Program Management, Foreign Military Sales (Basic and Executive), Quality Assurance, Procurement, and Resource Management.

As the training program was refined, SSM expanded its acquisition management training program to include resident graduate programs from U.S. military colleges such as the Naval Post Graduate School and the Air Force Institute of Technology. To date, five students have graduated or are currently attending such graduate programs.

WHERE TURKEY IS GOING

Since implementation of the DECA, defense representatives from Turkey and the U.S. conduct annual DIC Executive Committee Meetings to discuss and promote defense cooperation in areas of mutual concern and benefit. The last DIC Executive Committee Meeting was held in May 1994. The U.S. and Turkey are currently in initial discussions exploring three new areas of possible defense industrial cooperation:

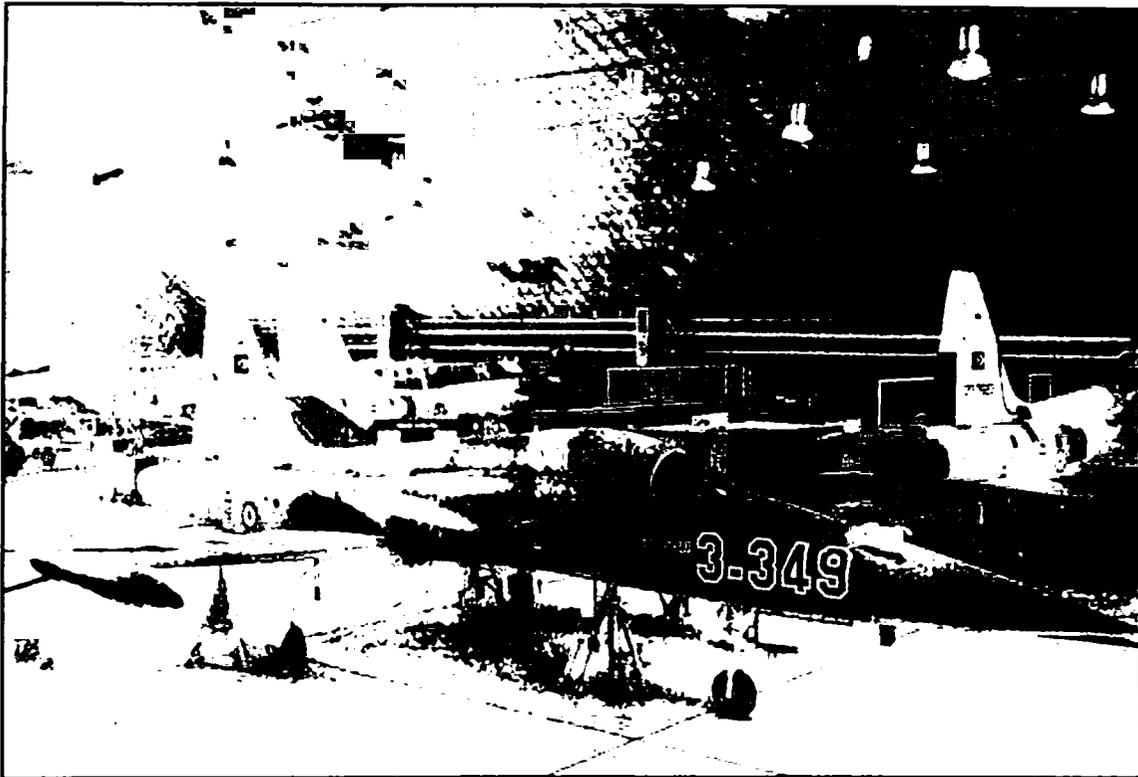
- (1) Production of M-Series Vehicles Spare Parts: This program would allow Turkey to produce or co-produce spare parts for older U.S. manufactured M-Series tactical vehicles experiencing diminishing manufacturing sources.
- (2) Modernization of Turkish ammunition plants to produce modern munitions.
- (3) Modernization of Turkish Land Forces helicopter depot level maintenance facilities.

In addition to these three areas, Turkey is developing a Defense Industrial Co-operation Strategy. This strategy will define where Turkey wants and needs to be in the future and how it plans to get there. Once completed, the U.S. and Turkey will compare and discuss those areas where Defense Industrial Cooperation can be beneficial to both countries.

HOW TO DO BUSINESS IN TURKEY

In the last two years, ODC Turkey has held several seminars in an effort to help educate U.S. and Turkish defense businessmen about Turkish and U.S. acquisition systems. During the 1993 Turkish Civil and Defense Industrial Trade Fair, IDEF 93, held in Ankara, ODC Turkey sponsored a "How To Do Business" seminar. The seminar was attended by Turkish and American defense industry representatives. An extensive briefing on the U.S. defense procurement process was presented by a representative of the U.S. DoD Foreign Procurement Department.

In April 1994, ODC Turkey conducted a seminar on "Doing Business In Turkey." Topics discussed were offset considerations, total package offerings, program management and control, and creative financing.



Turkish F-5 Repair and Upgrade: Building a strong industrial base.

CONCLUSION

As you can see, the 1980 DIC agreement was very successful. Turkey now has developed a significant military industrial capability. There are probably some areas where not everything which both sides intended has been achieved but it was a very good starting point. Turkey has entered into many co-production programs, initially funded through the FMF program. In recent years with the change from FMF grant to loans and the decrease in overall FMF, Turkey has had to look at other ways to fund defense projects and weapon systems. Turkey has turned more to using Turkish national defense funds and the Defense Industrial Support Fund for the procurement and co-production of weapons systems. Commercial joint ventures have also provided much of the necessary capital. Ventures for large government procurement or coproduction projects will more frequently involve some type of offset or countertrade agreements.

In closing, what Dr. Albert J. Kelly, former Deputy Under Secretary of Defense for International Programs, said in his opening remarks at the DIC Executive Committee Meeting in Ankara, Turkey, 14 November 1991, still holds true today: "We need to look for innovative ways to assist each other and complement each others capabilities in order to make efficient use of scarce defense resources." In Turkey today and tomorrow, there continues to be a bright future for Defense Industrial Cooperation.

ABOUT THE AUTHOR

Lieutenant Colonel Steve Tolbert, USA, is the DCA Manager, JPD, ODC Turkey. A member of the U.S. Army Acquisition Corps, he has a Level 3 certification in contracting. Prior to coming to ODC Turkey, he was the Chief of Contracting at the National Defense University.