Revision of US Arms Export Data Series

With the WMEAT 1997 edition, the data series on US arms exports in dollar value terms is revised upward substantially using a new interim methodology, in the interest of improved accuracy. The revision was made in one of the two major component types of exports, namely, the "commercial" arms sales made directly by US firms to foreign importers under authorization of the Department of State in accordance with the US Government's International Traffic in Arms Regulations. The other major type is exports under the "Foreign Military Sales" (or FMS) program administered by the Department of Defense, which serves as an intermediary in transfers to other governments. After the present data revision, commercial exports made up 52% of total US arms exports over the past decade, FMS sales, 47%, and several minor types of exports, one percent.

In the previous methodology, the commercial arms component was represented by "preliminary" data on the deliveries (or actual exports) made under approved export licenses, as compiled by the Department of State. Due to growing difficulties in the availability, reporting, and recording of this data (which passes on State-approved licenses from exporting firms to the US Customs Service and back to State and its databank), this data series has become unacceptably incomplete and provides an inadequate measure of the full volume of such exports.

A fully satisfactory replacement for this data series, however, is not available at the present time, either in the form of an alternative series or a reasonably reliable estimate of actual deliveries. Therefore, pending the establishment of reliable recording of actual commercial exports, the US arms exports data series in this edition of WMEAT incorporates an *estimated* data series employing an *interim* methodology, which is to be replaced in an early successor edition with a more satisfactory solution based on ongoing research efforts.

In the temporary estimate of total US arms exports used in this edition, the commercial component is estimated from the only other data series available, the value of approved arms export licenses and authorizations issued by the Department of State.²

Approved licenses for commercial arms exports generally should be strongly indicative of actual exports, since license applications must be accompanied by evidence of concluded sales, such as signed contracts, purchase orders, or letters of intent. However, the real relationship between commercial deliveries and authorizations—that is, the exact extent to which authorizations result in actual exports—is uncertain, and the scarce empirical evidence presently available is inadequate for sound estimating purposes. In the interim, therefore, it is assumed as a temporary expedient that deliveries constitute a medial 50 percent of total authorizations by country. These deliveries are then distributed in a fixed pattern over the years of license duration, which changed during the past decade from three vears to four.

Efforts are currently underway, with the collaboration of the Department of State, to acquire sufficient empirical evidence for a more reliable method of estimating actual commercial exports from authorizations. This method will then be used in WMEAT until a fully reliable system of reporting of actual deliveries is in place.

The table below shows US commercial arms exports in three forms: reported ("preliminary" or partial) deliveries, total approved licenses and authorizations (both as reported by the Department of State), and the present estimate of deliveries based on 50 percent of authorizations, distributed over license duration. Also shown is the ratio (in percent) of partial deliveries to authorizations.

These data can be found in the annual Congressional Presentation for Foreign Operations, prepared by the Departments of State and Defense, and in the Defense Security Assistance Agency's Foreign Military Sales, Foreign Military Construction Sales and Military Assistance Facts as of September 30, 19—.

Reported to the Congress under Sections 36(a)(4) of the Arms Export Control Act and Section 655 of the Foreign Assistance Act. The Section 36 report shows the total value of approved licenses (for defense articles) by recipient country, and the Section 655 report, initiated in 1997, also shows agreements (for defense services) and defense articles by type.

US Commercial Arms Exports, Alternative Series, 1986-1996
(In millions of current dollars)

Fiscal Year	Reported (Partial) Deliveries	Authori- zations	Ratio, Reported Deliveries to Authorizations (%)	Estimated Deliveries (At 50%)
1986	3,678	14,727	25.0	6,150
1987	6,436	14,578	44.2	6,840
1988	4,637	19,155	24.2	8,220
1989	8,165	21,181	38.6	9,530
1990	6,064	33,041	18.4	12,800
1991	5,039	39,899	12.6	16,200
1992	2,563	15,817	16.2	14,200
1993	3,806	25,796	14.8	12,100
1994	3,332	25,394	13.1	11,800
1995	2,759	19,234	14.3	10,100
1996	1,077	26,802	4.0	10,600

Note: These data are total exports to the "world" as in *WMEAT*, and are slightly smaller than global totals due to the omission of some very small recipients.

It should be noted that the data on authorizations through 1995 covers only licenses for defense articles. Data on agreements for defense services (for manufacturing and technical assistance) are available and included beginning with 1996. These agreements are usually valid for longer periods than licenses, a difference that is ignored in the present method.

The newly estimated interim commercial exports series is confidently believed to be more accurate than the previous series. However, in view of the less-thandesirable present supporting information, it should be kept in mind that considerable uncertainty attaches to the new commercial and the resulting total arms export series, and both are subject to further change in succeeding editions when adequate information becomes available. The new methodology has a substantial effect on the total US arms export series; it is 45 percent higher on average for the 1986-1996 decade, and nearly 60 percent higher for 1990-1996.

It should also be noted that there is some uncertainty regarding the comparability of (total) US arms

exports data with the estimates used for the exports of other countries. Although comparable in conceptual scope, the latter estimates are based on US Government sources, which may not be able to capture the full extent of small arms, spare and production parts and components, and defense services exported by these countries. The question is not believed to be serious under the present temporary methodology, which is thought more likely to underestimate than overestimate commercial deliveries, and thus total US exports. The expected availability of data on the full extent of US commercial exports of defense articles and services will make this question more acute.

The use of data on the value of other-country arms exports as published by sources in those countries is of little assistance in this regard because not all major exporting countries regularly release such data, and when they do, the scope and content of the reported arms exports is not adequately revealed or known. These issues are also currently under investigation.