

The Right Tools

usiness aviation is among the largest and fastest-growing segments of Flight Safety Foundation (FSF) membership. Decades ago, when business aircraft operators increasingly flocked to the Foundation to bolster their safety efforts, we responded with a number of tailor-made products, including the annual Corporate Aviation Safety Seminar (CASS), recently held in partnership with the National Business Aviation Association, and operational safety audits of corporate flight departments. The auditors used to collect what they called "good

ideas" — articles, videos, contacts, brochures —that informally would be handed out on a compact disc to department managers after the audits were completed.

About a decade ago, the audit staff turned to the Foundation's publications and technical specialists for help in turning the popular good-ideas CD into an organized and professional product. The result was the *Aviation Department Tool Kit*, a product comprising six unique CDs jam-packed with information and tools useful to flight department managers, chief pilots, standards pilots, line pilots, maintenance managers and mechanics, flight attendants, dispatchers — everyone in the department — in conducting their duties safely and efficiently.

As the availability of quality auditing services increased, the Foundation suspended its operational safety audits, but the tool kit arising from that effort in 2006 is still available. In fact, it was extensively revised in 2011 with updated information and new material.

Before the tool kit was published, the Foundation frequently received requests for help in creating company

FOUNDATIONFOCUS

manuals. Accordingly, the cornerstone of the tool kit — the Aviation Department Resources CD — features four templates that easily can be tailored and converted into individual flight department manuals. They include the General Operations Manual, the Flight Operations Manual, the Safety Manual and the Emergency Response Manual. Each has been adapted by the Foundation, with express permission, from manuals currently being used by leading U.S. aviation departments.

The adaptation included conversion of the manuals into Microsoft Word format, to facilitate changes, deletions and additions necessary to create documents that aviation departments can call their own. The original manuals were painstakingly de-identified, which actually makes them easy to tailor by anyone with passing proficiency in using Word's search-and-replace function. For example, the oft-repeated "[company name]" can be universally replaced with a few key strokes. Ditto for bracketed, generic references to aviation department bases, aircraft types and registration numbers, personnel, telephone numbers, service providers, etc.

The General Operations Manual template was incorporated in the 2011 revision. The aviation department that originated this manual obviously made an exceptional effort to produce a thorough and wellthought-out document. The tool kit template comprises more than 400 pages, including appendixes. Of particular note are the sections detailing the department's safety management system and security procedures critical areas in today's business aviation environment.

The General Operations Manual originated with a department that operates several turbine airplanes domestically and internationally from separate bases in the United States. The Flight Operations Manual template is a similar document, developed by a smaller department, but one that operates a mixed fleet of airplanes and helicopters. The Safety Manual and Emergency Response Manual templates provide even more grist for developing a master aviation department manual or separate specialized manuals, as does the Operator's Flight Safety Handbook, which is on a separate CD in the tool kit. The handbook is accompanied by the Cabin Safety Compendium, both developed under the aegis of the Global Aviation Information Network, which today is principally supported by the Foundation.

Also of note is the inclusion in the *Aviation Department Resources* CD of guidelines for duty and rest scheduling in business aviation that are still as pertinent and useful today as they were when developed in 1997 by the FSF Fatigue Countermeasures Task Force in conjunction with the National Aeronautics and Space Administration.

The cornerstone CD offers a myriad of selected presentations from CASS, business-aviation-related articles from *AeroSafety World* and previous FSF periodicals, and links to potentially useful Internet sites.

Aviation Department Resources also includes selected information and materials generated by the Foundation's approach and landing accident reduction (ALAR) project and by its runway safety initiative (RSI), but the ALAR Tool Kit also is in the package to provide the whole enchilada. The multimedia CD includes topical briefing notes, statistical data analyses, exhaustive reports, posters, videos, and specific guidelines and tools for preventing approach and landing accidents, and runway excursion accidents.

One of the FSF-produced videos, "CFIT Awareness and Prevention," includes chilling accounts of two controlled flight into terrain accidents involving business airplanes. One was a Beechjet that struck a hill in Georgia while maneuvering beneath a low ceiling in a non-radar environment and without a ground-proximity warning system, while awaiting an instrument clearance. The other was a Gulfstream II that struck a mountain in Malaysia during a go-around initiated because of confusion over instructions issued by a controller whose native language was not English. The accidents occurred in 1991, but the lessons learned remain remarkably pertinent today.

Another tool kit CD contains the entire 600-plus pages of the Foundation's seminal guide for business and commercial airplane operators conducting overwater flights. The CD, *Waterproof Flight Operations*, includes recommended ditching procedures, tips for purchasing life rafts and other survival equipment, advice on staying alive until help arrives, and a lot more.

Rounding out the tool kit are two multimedia presentations about recognizing and responding to critical malfunctions of turbofan and turboprop engines. Of interest to all flight crewmembers, these resources are especially valuable to pilots stepping up to turbine aircraft.

The Aviation Department Tool Kit is available at <flightsafety.org/store/avia-tion-department-tool-kit-update>.