Human Factors
Crew Resource Management
(CRM)

Advanced Crew Resource Management
(ACRM)

Crew Resource Management (CRM) emerged from the Human Factors Research that was being done in the late 1970s and early 80s. The crash of a United Airlines DC-8-61 at Portland, Oregon December 28, 1978 provided the impetus for the FAA to require a program to deal with the Human Factors issues in the cockpit. United was given a deadline to produce a program acceptable to the FAA that addressed the areas of concern, and to have all their flight crews trained in the elements of the program by a given date. United developed the initial program under the name Command/ Leadership/ Resource Management (C/L/R) and trained all their crews by the fall of 1981. They sold generic models of their programs to many other airlines that were seeking ways to meet the new FAA requirements of CRM.

Principals of *AOS* were involved with the development and refinement of the C/L/R course at United Airlines and served on Human Factors committees at United and the IATA Human Factors Task Force. Recommendations from this early work are the basis of the Advance Crew Resource Management (ACRM) programs that are the core of the Advanced Qualification Programs (AQP) most major airlines use for their training and evaluation. AQP is the most comprehensive aviation safety plan in the airline industry. It is specifically designed to increase safety through improved training and evaluation, and by being responsive to changes in aircraft technology, operations, and training methodologies. It must be airplane specific, cover all duty positions, and be done to the" maximum extent possible in the full cockpit crew environment".

The evaluation of CRM skills is mandatory. The Training and Evaluation of CRM must be in accordance with the provisions of ADVISORY CIRCULAR 120-51, Crew Resource Management Training, and CFR, SFAR 58. While the technical skills are still required and are evaluated, no longer is just being a good stick and rudder pilot enough to complete training or pass a check ride. The ability to manage the work load, use the resources available, make good decisions, and maintain situational awareness is equally important.

The elements of Crew Resource Management can also be applied in many areas other than the cockpit. Anywhere people share tasks and information the application of CRM techniques will enhance productivity and improve quality.

AOS is uniquely qualified to assist in developing, refining, and facilitating CRM programs tailored to the clients needs.

Ref: www.faa.gov/education-research/training

What is the Status of Crew Resource Management (CRM)?

The current environment of airline bankruptcies, high fuel costs outsourcing, and overall cost cutting is causing concerns among flight safety experts worldwide.

Historically, the areas subject to immediate cost cuts are training, inspections, and deferrable maintenance items. If the situation continues, the new situation becomes the norm. Any further costs cuts are then made from the newly established norm. Over time, the very concept that inspired the original standard is lost and the lessons must be learned again. Unfortunately, this means paying the cost again in dollars and fatalities.

Crew Resource Management (CRM) training has been mandatory for the major US airlines since the early 1980s. It is an integral part of the air crew training, check, and certification for all of the major airlines in the United States and for most that fly into its airspace

Recent accident and incident reports, news stories, and results of investigation and audits have raised the question as to whether or not CRM has been eroded as a cornerstone of Flight Safety in the current environment. It is difficult to find the individuals responsible for CRM as departments have been folded into other departments and programs disappear.

It is the recommendation of this group that a study be conducted of the Airline Transportation System to determine whether or not the perceived deterioration of Crew Resource Management exists, and if so, what the costs are in both economic terms and human lives.

It is further recommended that if discrepancies are discovered as an industry-wide problem, that a study of existing programs be initiated to select the best ones and to facilitate their implementation into the Airline Transport System.