AVIATION SAFETY/AUTOMATION PROGRAM
OVERVIEW

Samuel A. Morello
NASA Langley Research Center
GOAL

PROVIDE THE TECHNOLOGY BASE LEADING TO IMPROVED SAFETY OF THE NATIONAL AIRSPACE SYSTEM THROUGH DEVELOPMENT AND INTEGRATION OF HUMAN-CENTERED AUTOMATION TECHNOLOGIES FOR AIRCRAFT CREWS AND AIR TRAFFIC CONTROLLERS
The Problems

MAN VEHICLE/STATION

- Human Errors
- Automation Design
- Traffic/Congestion
- Weather Hazards

SYSTEM

Perspective

- Automation can improve the efficiency, capacity and dependability of the national aviation system

--- BUT ---

- Humans will manage, operate and assure the safety of the next generation system

--- THEREFORE ---

- Human-centered automation is the key to system effectiveness
Specific Objectives

- To develop the basis, consisting of philosophies and guidelines, for applying human-centered automation to the flight deck and ATC controller station

- To provide human-centered automation concepts and methods to the flight crew which ensure full situation awareness

- To provide human-centered automation concepts and methods for ATC controllers which allow integration and management of information and air-ground communications

Overview

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ATC/COCKPIT INTEGRATION

PROGRAM SUB-ELEMENT 89 90 91 92 93 94

ATC AUTOMATION & INTEGRATION

INFORMATION MANAGEMENT

TECHNOLOGY TRANSFER

Steering Cmte; NASA/FAA/Industry Workshops and Technical Conferences
PROGRAM ELEMENT I

HUMAN/AUTOMATION INTERACTION