



Aero Union and the MAFFS II Aerial Firefighting System

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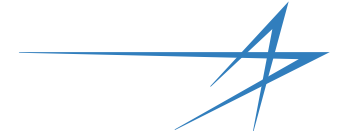
Aero Union Assets



blue aerospace
HEICO company ≡ *inspiration in flight*



- Blue Aero and United Aeronautical in partnership have purchased all assets
 - Tangible
 - Intangible
- At this time, we are not an operator, but seek to make the highly effective assets of UAC available to those who are



Going Forward



- Make flight assets (P-3s) available for lease or sale
- Work with customer community to ensure proper / appropriate maintenance conducted
- Provide legacy support for older systems (RADS II, MAFFS I)
- Reorganize engineering and manufacturing data related to systems
- Regenerate capability to supply fully operational MAFFS II units

MAFFS II

Operational Need



- Population Growth into what were once uninhabited wildland areas
- Large wildfires affect citizens and infrastructure annually worldwide with high cost



- Wildfires Worldwide in 2012:
 - Over 60,000 wildfires burning over 9.3 million acres (2 x New Jersey)
 - Agriculture, Cattle & Structures lost – over \$5 billion
 - Over 2,000 homes and Structures lost

Modular Airborne Fire Fighting System II (MAFFS II)



Provides the C-130 with capability to suppress large Wilderness and Urban Fires



MAFFS II System

- Self-Contained Roll On/Roll Off System with minimal permanent modification of the aircraft
- Applicable to C-130H, J or J-30 Stretch Aircraft
- Aircraft remains sealed & pressurized – prevents corrosive Fire Retardant from coating the empennage and entering the interior
- Capacity of up to 3,000 Gallons of Fire Retardant or water
- Meets all Current US Forest Service Standards for setting variable Coverage Levels and Quantities per Discharge
- Controllable Pressurized Discharge
- Onboard air compressors utilizing aircraft power eliminates the need for Ground Air Compressors
- Reduced ground servicing time





MAFFS II System

- Final USAF Airworthiness Approvals obtained in July 2010
- Eight systems in use by the US Air National Guard
 - NC, CO, WY, CA
 - Two systems in each location
- Two years of largely successful operations
- Typically a “surge” capability





MAFFS II Configuration



Forward

Center

Aft



MAFFS II System Configuration



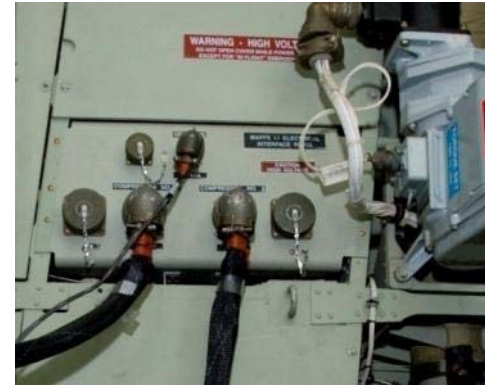
- The MAFFS II system consists of the following components installed on three pallets:
 - Forward Pallet Assembly
 - MAFFS II Electrical Power Input/Conditioning/Distribution Equipment
 - MAFFS II Control System
 - Two Air Compressors and associated Air Compressor Motors (to supply the High Pressure Air Reservoirs on the Center Pallet)
 - Center Pallet Assembly
 - 3,400 Gallon Capacity Stainless Steel Fire Retardant Tank (pressurized to 100 psi)
 - Limited to 3,000 Gallons of Retardant operationally due to total loaded system weight.
 - Two High Pressure Air Reservoirs (38 cubic feet/1480 psi each)
 - Aft Pallet Assembly
 - MAFFS II Operator's Console with two seats (Primary Control Station)
 - MAFFS II Hydraulic System Components
 - 'S' Duct to Constant Flow Discharge Nozzle exterior to the aircraft
 - Additional Components
 - Left Paratroop Plug Door with 'S' Duct pass through.
 - Copilot Drop Control Pendant (Secondary MAFFS II Discharge Control)



Required MAFFS II Aircraft Modifications



- MAFFS II Electrical Interface Panel installation is the only required Aircraft Modification to provide full MAFFS II system capability



- Electrical Interface Panel installed on the FS 245 Bulkhead in the Cargo Compartment:
 - Integrated with the aircraft AC Electrical Power System
 - Provides electrical power for MAFFS II Onboard Air Compressor Motors and Hydraulic System. May be used for powering other mission systems
 - Aircraft Electrical Bus Monitoring signals provided to the MAFFS II system to support Load Shedding in case of excessive power loads
 - Available as a LM Aero Service Bulletin Kit for retrofit



MAFFS II Discharge Nozzle





Recent MAFFS II Operations



MAFFS Drop Videos – Summer 2012 Colorado Springs, CO & Shasta, California

<http://www.youtube.com/watch?v=NJC3pA9CJgk> Cockpit View

<http://www.youtube.com/watch?v=13SV4bOKHjk> Training Runs

<http://www.youtube.com/watch?v=J0bKpu03Otw&feature=related> Operations

<http://wildfiretoday.com/2012/06/25/how-install-maffs-ii-c-130j/> Install

<https://www.facebook.com/145AEGMAFFS> Facebook



MAFFS II In Operation

