

Supports Parachute Ballistics and Aircraft Data  
Dynamic Guidance to the Air Release Point

# Airdrop Module

## For Multi-Mission Management System (MMMS)

Supports:

- Low Altitude Computed Air Release Point (CARP)
- High Altitude Computed Air Release Point (HARP)
- Very Low Altitude (VLA) Package Delivery

## Unmatched Support For Special Mission Operations

Airdrop is an optional module available for Universal Avionics Multi-Mission Management System (MMMS) that calculates an Air Release Point (ARP), and provides guidance and steering to a position offset where the delivery should exit the aircraft for a landing at the desired drop zone.

The MMMS with Airdrop provides dynamic guidance to the ARP updated continuously until 15 seconds prior to the release. Discrete output signals can be used to indicate approach to the ARP within one minute, arrival at the ARP and reaching the end of release to provide delivery within the specified target zone. Airdrop also includes an automatic "holding pattern" reversal and repeat for more than one pass over the drop zone. Wind and release parameters can be adjusted during the return for subsequent releases.

Specific parachute ballistic and aircraft data can be conveniently created offline via a Universal-supplied PC tool, and loaded into the MMMS using the Solid-State Data Transfer Unit (SSDTU).

Airdrop delivery profiles can be created directly through the MMMS Control Display Unit, or ahead of time with the offline PC tool. Once loaded, the profile can be changed or edited by the flight crew prior to commencing the airdrop release.

With unmatched support for special mission operations, the Universal Avionics MMMS offers precision Airdrop for mission success.

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# Airdrop MMMS Pages

Note that page titles and content will vary depending on what drop type, wind type, and other parameters are selected.

**AD DATA 1/5**

←DB INFO	DZ LENGTH	3000M
PI LAT LON	SPEED	
N 32 14.370	PROFILE→	
W109 54.100	PI ELEV	4182FT
DROP TYPE	DROP HT	5000FT
HARP		
DZ AXIS	RETURN→	
034.2°		

On Data Page 1, the operator can enter Point of Impact location, aircraft speed profiles related to the Air Release Point, and edit other drop profile parameters.

**HARP DATA 2/5**

CATEGORY	LOAD STAT	280.2
HALO-PER	WIND TYPE	
CHUTE TYPE	ALT	
MC-3	WIND FAC	75%
PAX/LOAD WT		
250LBS		
# CHUTES		
1		
ACTN HGT	RETURN→	
500FT		

Airdrop Data Page 2 displays information for the selected type of airdrop including chute data, load parameters, and wind considerations.

**HARP DATA 3/5**

ET /DQ	FTT	
2.3/2.6SEC	4.9SEC	
DPLY RF	FTD	
17.5 FT/SEC	355FT	
HV RF	DCEL DIST	
156.6 FT/SEC	380FT	
VD /TFC	DCEL TIME	
1618FT/10.0SEC	3.4SEC	
	RETURN→	

Data Page 3 shows informational type data pertaining to the deployed item fall rates, times, decelerations, and travel distances.

**HARP DATA 4/5**

INBD	REPEAT	TTD
034.2°		04:19

TURN	IP DIST	
LEFT	2.3NM	
REPEAT DROP		
YES	RETURN→	

Airdrop Data Page 4 displays navigation information relating to the loaded airdrop profile including repeat pattern flight path data.

**AD SOLN 5/5**

HV WIND	ACTIVE	TTD
185T/ 5 (M)		06:07
DPLY WIND	TGT IAS	
185T/ 1	180KTS	
ALTK OFFSET	IP DIST	
374M BEFORE	2.8NM	
XTK OFFSET	REPEAT DROP	
12M RIGHT	YES	
←STANDBY	RETURN→	

Airdrop Data Page 5 displays airdrop status information in relation to the loaded profile.

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