

SUPPLEMENT D71
TO THE AIRPLANE FLIGHT MANUAL
DA 62

2EXCEL ISR CONFIGURATION

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: 11.01.05-E
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The technical information contained in this document has been approved under the authority of DOA ref. EASA.21J.052.



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0.1 RECORD OF REVISIONS

Rev. No.	Reason	Chapter	Page(s)	Date of Revision	Approval Note	Date of Approval	Date Inserted	Signature

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FOREWORD

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1. GENERAL

1.1 INTRODUCTION

The DA 62 MPP can be equipped with an optional 2Excel ISR Configuration. To enable this installation the WX Multi-Purpose Nose (System No.: M30) must be installed.

The supplements of the following modules must be included into the AFM:

Modules	Doc. No.
M30 - WX Multi-Purpose Nose	Supplement STC-62-001-M30
M50 - Camera Hatch	Supplement STC-62-001-M50
M90 - Equipment Wiring Installation Duct	Supplement STC-62-001-M90
Alternative Seating Configuration	Supplement STC 62-002
M10 - Display Mount Provision	Supplement M10

2. OPERATING LIMITATIONS

2.12 FLIGHT CREW

For flights with the MISSION MASTER switch ON:

Minimum crew : 2 (two persons) consisting of
: 1 pilot and
1 mission equipment operator
seated in the rear cabin

WARNING

The operation of the airplane in aerial work needs special training for the pilot and the operator.

2.13 KINDS OF OPERATION

Flights according to VFR, NVFR and IFR with mission master ON are permitted.

2.14 Limitation Placards

All limitation placards are shown below. A list of all placards is included in the Supplemental Airplane Maintenance Manual (Doc. No. 7.02.25- DEO 62-071).

No Baggage
allowed

Max. Baggage:
10 kg (22 lb)

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3. EMERGENCY PROCEDURES

WARNING

The mission system power supply must be switched off in any emergency, abnormal, or icing condition.

3.12 SMOKE AND FIRE

3.12.6 CABIN SMOKE

1. MISSION MASTER OFF

Initiate an emergency descent

2. FLAPS UP
3. LANDING GEAR DOWN
4. POWER lever IDLE
5. FLAPS as required

WARNING

Max. operating speed with equipment installed: $v_{MAX} = 162$ KIAS

6. Land on the nearest suitable airfield.

END OF CHECKLIST

4A. NORMAL OPERATING PROCEDURES

4A.6 CHECKLISTS FOR NORMAL OPERATING PROCEDURES

4A.6.6 BEFORE TAKE-OFF

1. Loose equipment securely stowed checked
2. Baggage net installed and tightened

END OF CHECKLIST

4A.6.22 USING MISSION EQUIPMENT

Starting mission:

1. POSITION LIGHTS and STROBE ON
2. MISSION MASTER ON

WARNING

The mission system power supply must be switched off in any emergency, abnormal, or icing condition.

After mission:

1. MISSION MASTER OFF

END OF CHECKLIST

4A.6.11 APPROACH & LANDING

1. Loose equipment securely stowed checked

END OF CHECKLIST

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4B. ABNORMAL OPERATING PROCEDURES

No change.

5. PERFORMANCE

No change.

6. MASS AND BALANCE

6.4 FLIGHT MASS AND CENTER OF GRAVITY

6.4.1 MOMENT ARMS

The lever arms of the individual items of the 2Excel ISR Configuration aft of the Datum Plane:

Item	Mass		Lever Arm	
	kg	lb	m	in
Gimbal Camera TC-375	39.20	86.42	-0.51	-20.08
C-Band Transmitter	4.50	9.92	0.89	35.04
DC/DC Converter	0.59	1.30	0.85	33.46
17,3" High Definition Rugged Display	4.45	9.81	2.76	108.66
17,3" High Definition Rugged Display	4.45	9.81	2.76	108.66
Blackmagic Design Video Assist 7" 12G HDR	0.81	1.79	1.90	74.80
iKey Keyboard	0.96	2.12	2.92	114.96
P139-HD Control Panel	0.42	0.93	1.66	65.35
P139-HD Control Panel	0.42	0.93	2.90	114.17

Item	Mass		Lever Arm	
	kg	lb	m	in
Remote Control Unit GB6500	0.82	1.81	1.66	65.35
Maritime VHF/FM Airborne Transmitter (TFM-138B)	0.53	1.17	2.90	114.17
Remote Control	0.54	1.19	2.90	114.17
Fanless Computer	5.60	12.35	3.99	157.09
AIS Receiver	0.59	1.30	4.20	165.35
Mini Converter SDI Distribution	0.34	0.75	4.24	166.93
Mini Converter SDI Distribution	0.34	0.75	4.24	166.93
SDI to Analog Converter	0.25	0.55	4.24	166.93
Rugged Video Encoder, Makito X4	1.92	4.23	3.94	155.12
Tray Mount	0.25	0.55	3.96	155.91
P139-HD Audio Router	1.60	3.53	3.96	155.91
Ethernet Switch	0.83	1.83	3.93	154.72
Multi Band Transceiver XM6923	6.40	14.11	3.98	156.69

Item	Mass		Lever Arm	
	kg	lb	m	in
Mission Power Panel - Assy	4.30	9.48	4.23	166.53

NOTE

The masses shown in the table above are equipment masses without mounting provisions.

6.5.1 ADDITIONAL EQUIPMENT LIST

Airplane Serial No.:		Registration:		Date:	
No.	Description	Part No.	Manufacturer	S/N	Installed
1	Gimbal Camera TC-375	2-0501-A5D1	Trakka Systems	2202317	
2	C-Band Transmitter	2915	Britannia 2000	99279701	
3	DC/DC Converter	RG28	KGS Electronics	4008	
4	17,3" High Definition Rugged Display	VPT-17HD-MIL-PT	Viewpoint Systems	2015	
5	17,3" High Definition Rugged Display	VPT-17HD-MIL-PT	Viewpoint Systems	2016	
6	Blackmagic Design Video Assist 7" 12G HDR	12285801	Blackmagic Design	11881061	
7	iKey Keyboard	IK-TR-911-RED-3Y	iKey	031423001665	
8	P139-HD Control Panel	G13116NS	Anodyne Electronics Manufacturing	114779	
9	P139-HD Control Panel	G13116NS	Anodyne Electronics Manufacturing	114780	
10	Remote Control Unit GB6500	6087.9255.03	Rohde & Schwarz	101281	

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Airplane Serial No.:		Registration:		Date:	
No.	Description	Part No.	Manufacturer	S/N	Installed
11	Maritime VHF/FM Airborne Transmitter (TFM-138B)	921012-1	Technisonic Industries Limited	F6692	
12	Remote Control	2797	Britannia 2000	99279201	
13	Fanless Computer	ABOX-5210G7-i7	Sintrones	GSN23-0077	
14	AIS Receiver	SA161-MH-01-02-AE	Shine Micro	161MH-2N4515-070	
15	Mini Converter SDI Distribution	BM-CONVMSDIDA	Blackmagic Design	12779275	
16	Mini Converter SDI Distribution	BM-CONVMSDIDA	Blackmagic Design	10522963	
17	SDI to Analog Converter	BM-CONVMASA	Blackmagic Design	10224008	
18	Rugged Video Encoder, Makito X4	S-MX4E-R-SDI4-ISR	Haivision	072207020002	
19	Tray Mount	G13009	Anodyne Electronics Manufacturing	N/A	
20	P139-HD Audio Router	G13000S	Anodyne Electronics Manufacturing	114841	
21	Ethernet Switch	EDS-G4012-4GC-LV-T	Moxa	TBCID1003656	
22	Multi Band Transceiver XM6923	6134.8803.67	Rohde & Schwarz	101769	

Airplane Serial No.:		Registration:		Date:	
No.	Description	Part No.	Manufacturer	S/N	Installed
23	Mission Power Panel - Assy	329-2556-10-00	Diamond Aircraft Industries	N/A	

NOTE

Changes in mass and balance caused by the installation of the 2Excel ISR Configuration must be taken into consideration.

7. DESCRIPTION OF THE AIRPLANE AND ITS SYSTEMS

7.1 INTRODUCTION

The DA 62 can be equipped with optional mission equipment that allows the aircraft to be used for law enforcement, surveillance, border control and search & rescue. The equipment as part of this DEO consists of an TC-375 camera system attached via a quick connect unit, an AIS receiver, a Rohde & Schwarz Multiband Radio, a VHF/FM Radio and Video Encoder providing live video to a mission PC.

7.10 ELECTRICAL SYSTEM

7.10.3 WARNING, CAUTION AND ADVISORY MESSAGES

The mission equipment installed for this DEO are connected to the Mission Bus via the in the rear baggage compartment installed Power Panel.

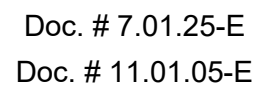
The following table shows the peak power consumption of the parts of the 2Excel ISR Configuration at 28V DC. The maximum continuous power consumption is slightly lower. The table must be used in conjunction with the AMM of the DA 62 Doc. No. 7.02.25-DEO 62-071, Section 24-81.

System	Power Consumption [A]
Gimbal Camera TC-375	16.1A @ 28V
C-Band Transmitter	11.4A @ 14V
17,3" High Definition Rugged Display	2.35A @ 28V
17,3" High Definition Rugged Display	2.35A @ 28V

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System	Power Consumption [A]
Blackmagic Design Video Assist 7" 12G HDR	2.36A @ 14V
iKey Keyboard	0.24A @ 5V
P139-HD Control Panel	0.7A @ 28VDC
P139-HD Control Panel	0.7A @ 28VDC
Remote Control Unit GB6500Desktop Firewall	0.1A @ 28VDC
Maritime VHF/FM Airborne Transmitter (TFM-138B)	2A @ 28VDC
Remote Control	0.4A @ 28VDC
Fanless Computer	7A @ 28VDC
AIS Receiver	0.6A @ 28VDC
Mini Converter SDI Distribution	0.34A @ 14VDC
Mini Converter SDI Distribution	0.34A @ 14VDC
SDI to Analog Converter	0.57A @ 14VDC
Rugged Video Encoder, Makito X4	1.14A @ 28VDC
P139-HD Audio Router	0.7A @ 28VDC
Ethernet Switch	0.7A @ 28VDC
Multi Band Transceiver XM6923	13A @ 28VDC
Total	55.4A @ 28VDC

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8. AIRPLANE HANDLING, CARE AND MAINTENANCE

NOTE

The 2Excel ISR Configuration consists of a number of high precision parts.

The exposure of the equipped airplane to high humidity, high vibration/ shocks and high temperature variation should be avoided whenever possible.

NOTE

For detailed information about the handling, care and maintenance of the 2Excel ISR Configuration refer to the corresponding supplier manuals, latest revision.



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