## **MDR Down Load Procedures**

#### **IMPORTANT**

**Ensure PC laptop is <u>On</u>, LIMSS-GAS application is <u>Started</u>, and interfacing cable and MIL-STD-1553 card is <u>connected and configured</u>** 

#### Task Steps:

- 1. Ensure Aircraft Battery is connected (Do not turn aircraft battery on).
- 2. Ensure PC is on with a MIL-STD-1553 card and LIMSS-GAS installed prior to PC start up.
- **3.** Connect down load interfacing cable to the MIL-STD 1553 card and then to the "A" Bus Cable connector on the aircraft (Slide 4).
- 4. Start the LIMSS-GAS program (Slide 5).
- 5. Connect the down load cable power connector to the connector on the aircraft (Slide 4).

### **MDR Down Load Procedures**

- 6. Open the "Safety" menu and select "Down load only". LIMSS-GAS will begin inventorying flight files (Slide 6).
- 7. Once the inventory is complete, select the flight (date/time) and then change the "Output Directory" to desired location (Desktop; New Folder). Then select the "Down Load" button in the lower right corner of screen (Slide 7, 8, 9 and 10).
- 8. Once the Down Load is complete, disconnect all the cables, close the LIMSS-GAS application and disconnect aircraft battery.
- 9. Successful selected down loaded '<u>flight</u>'; will produce four (4) binary (.BIN) files; A audio, F fixed, V variable, and S Safety. Preceding flights will normally produce only the F, V, and S BIN files. <u>Note</u>: The last and/or preceding flights may contain audio; verify after LIMSS- GAS completes the flight inventory process.

#### **MDR Down Load Procedures**

- 10. E-mail the BIN files (F fixed; V variable; S safety) along with a short description of the problem to: <u>usarmy.rucker.hqda-secarmy.list.safe-dcai@mail.mil</u> or <u>William.F.Rhode.civ@mail.mil</u>; <u>Carl.J.Shea.civ@mail.mil</u> <u>Timothy.S.Ashcom.civ@mail.mil</u>. The audio (A) BIN file is too large to send via e-mail. Use the following site to send: <u>https://safe.amrdec.army.mil/safe/</u> The Lab will process the data and return it to you.
- 11. If there is possibility damage to the MDR or the MDRs electrical system components and/or connections; then remove the MDR and send it to the CRC for down load and processing (mailing address is in DA Pam 385-40).



#### LIMSS-GAS Main Screen

1416					
Eile LIMSS Help					
	- C				
Elie         LMSS         Help           IMSS         Help           IMSS         Help           IMSS         Help           IMSS         Help           Imss         Ground Analys           Version 14.16 January 7,         LIMSS Compatibility           IETM Ver. Revision 16         MDR Ver. MDRAV.000007           SP Ver. SALOT2001000         SP Ver. SALOT2001000           SP Ver. SALOT2001000         SP Ver. SAV05_006000           SP Ver. SAV06_006000         SP Ver. SAV06_006000           SP Ver. SAV06_010000         SP Ver. SAV06_010000           SP Ver. SAV06_010000         SP Ver. SAV09_010000           SP Ver. SAV13_005000         SP Ver. SAV13_005000           SP Ver. SAV13_005000         SP Ver. SAV61100000           SP Ver. SAV61100000         SP Ver. SAV61100000           SP Ver. SAV611000000         SP Ver. SAV61100000           SP V	Installed Items				
SP Ver: SAV6HF003000 SP Ver: SAV6HF005000 SP Ver: SAV6HF005000	all be referred to Project Manager, Apache Attack Helicopter, SFAE-AV-AAH, Building 5681 Redstone Arsenal, AL 35898.				
Furnished to the U.S. Government with UNLIMITED RIGHTS as defined by DFARS 252.227-7013 (UN 1995).					
Copyright - 2013 The Boeing Company					

#### **Down Load**

¥ UMSS 14.16		<b>1</b>	6					
File LIMSS Help								
View			onghowl	ntograted Maint	tononco Sunnort	Susta	m /I IMCC)	
Options >	Longbow Integrated Maintenance Support System (LIMSS) Ground Analysis Software (GAS)							
Help Do	ownload and Process ownload Only		'arsion	14.16 January	7, 2013 (Build LA	V14_0	016000)	
Pr	ocess Only	LIMSS Compatibility					20030200	
IETM Ver: Revision 16	ocess from AML Files							
SP Ver: SALOT2001000 SP Ver: SALOT3007000								
SP Ver: SALOT4008000 SP Ver: SAV06_006000								
SP Ver: SAV02_004000							Installed Items	
SP Ver: SAV08_004000 SP Ver: SAV09_010000 SP Ver: SAV09_011000					IETM Date: 31 Ma IETM Title Ver: Re	rch 2013 evision 16	5	
SP Ver: SAV09_012000					IE IM Data Ver: 04	17		
SP Ver: SAV10_003000 SP Ver: SAV11_005000								
SP Ver: SAV13_004000 SP Ver: SAV13_005000								
SP Ver: SAV13_006000 SP Ver: SAV131007000								
SP Ver: SAV131009000 SP Ver: SAV131010000			1 <b>1</b> 1	LIMSS 14.1	.6			
SP Ver: SAV61M003000 SP Ver: SAV62_005000				(100.000)				
SP Ver: SAV63_005000 SP Ver: SAV6HF001000			File	e [LIMSS]	Help			
SP Ver: SAV6HF002000 SP Ver: SAV6HF003000				1. Tr	ancfer		1	
SP Ver: SAV6HF005000					unarer	,		
				Vi	ew	•		
				0				
				0	otions			1
				Sa	fety	•	Download and Process	
							<b>D</b> 1 101	
				н	alp		Download Only	
							Process Only	LIMOR Commetibility
								LINISS Compatibility
					D ::	40	Process From XML Files	
DISTRIBUTION STATEMENT C: Dist	ribution authorized to U.S. Govern	ment Agencies and their contractors (Critical Technology)		ETM ver:	Revision	16		4
Furnished to the U.S. Government w	with UNLIMITED RIGHTS as defined	by DFARS 252.227-7013 (JUN 1995).		/IDR Ver:	MDRAV_	000	0007	
copyright - 2025 The boeing comp			5	SP Ver: S	ALOT200	100	00	
				SP Ver: S	AL OT300	700	00	
						000	0	
					ALUT400			
			1 5	SP Ver: S	AV06_00	600	U	
				SP Ver: S	AV07_01	800	0	

#### Flight Inventory Page

Date 04/09/2013 04/08/2013 04/07/2013 04/07/2013 04/07/2013	Time 01:04:00 01:26:00 04:15:00 00:59:00 07:50:00 07:50:00 07:40:00	Dow Maint Avail YES YES YES YES	Inload Safety Data Safety Avail YES YES YES	Voice Avail YES	Est Minutes
Date 04/09/2013 04/08/2013 04/07/2013 04/07/2013 04/06/2013	Time           01:04:00           01:26:00           04:15:00           05:59:00           07:50:00           07:40:00	Dow Maint Avail YES YES YES YES	Inload Safety Data Safety Avail YES YES YES	Voice Avail YES	Est Minutes
Date 04/09/2013 04/08/2013 04/07/2013 04/07/2013 04/06/2013	Time           01:04:00           01:26:00           04:15:00           00:59:00           07:50:00           07:40:00	Maint Avail YES YES YES YES	Safety Avail YES YES YES	Voice Avail YES	Est Minutes
Date 04/09/2013 04/08/2013 04/07/2013 04/07/2013 04/07/2013	Time 01:04:00 01:26:00 04:15:00 00:59:00 07:50:00 07:40:00	Maint Avail YES YES YES YES	Safety Avail YES YES YES	Voice Avail YES	Est Minutes
04/09/2013 04/08/2013 04/07/2013 04/07/2013 04/06/2013	01:04:00 01:26:00 04:15:00 00:59:00 07:50:00 07:40:00	YES YES YES YES	YES YES YES	YES	10.5
04/08/2013 04/07/2013 04/07/2013 04/06/2013	01:26:00 04:15:00 00:59:00 07:50:00 07:40:00	YES YES YES	YES	NC	10.5
04/07/2013 04/07/2013 04/06/2013	04:15:00 00:59:00 07:50:00 07:40:00	YES	YES	NO	2.0
04/06/2013	07:50:00 07:40:00	TES VEG	VEC	NO	3.1
04/06/2013	07:40:00		TES VES	NO	0.9
04/06/2013	01.40.00	YES	VES	NO	0.0
04/06/2013	04:06:00	VES	VES	NO	0.0
04/05/2013	11:38:00	YES	VES	NO	0.0
04/05/2013	10:54:00	YES	YES	NO	0.0
04/05/2013	06:21:00	YES	YES	NO	0.1
04/05/2013	05:52:00	YES	YES	NO	0.0
04/04/2013	04:39:00	YES	YES	NO	1.9
04/04/2013	01:10:00	YES	YES	NO	0.6 =
04/03/2013	01:47:00	YES	YES	NO	2.2
04/01/2013	00:31:00	YES	YES	NO	0.0
03/31/2013	11:11:00	YES	YES	NO	0.2
03/31/2013	06:13:00	YES	YES	NO	0.1
03/30/2013	06:09:00	YES	YES	NO	0.6
03/30/2013	05:40:00	YES	YES	NO	0.0
03/30/2013	03:59:00	YES	YES	NO	0.0
03/29/2013	07:17:00	YES	YES	NO	1.0
03/29/2013	00:29:00	YES	YES	NO	2.0
03/28/2013	14:51:00	YES	YES	NO	0.0
03/28/2013	10:08:00	YES	YES	NO	0.0
03/27/2013	23:42:00	YES	YES	NO	3.1
03/27/2013	21:02:00	YES	YES	NO	0.0
03/27/2013	11:25:00	YES	YES	NO	0.0
03/27/2013	06:39:00	YES	YES	NO	2.0
03/27/2013	01:54:00	NO	YES	NO	0.4
03/25/2013	02:38:00	NO	YES	NO	0.0
03/25/2013	02:32:00	NO	YES	NO	0.0
03/23/2013	04:22:00	NO	YES	NO	1.3
03/23/2013	02.22.00	NO	TES VEG	NO	0.3
03/23/2013	02:07:00	NO	1ES	NO	0.0
02/21/2013	12:24:00	NO	TES VEG	NO	0.0
02/21/2013	12:02:00	NO	VEQ	NO	0.0
03/21/2013	11:27:00	NO	VES	NO	0.0
03/21/2013	05:12:00	NO	VEQ	NO	0.0
03/20/2013	16:03:00	NO	VES	NO	0.4
03/20/2013	11:34:00	NO	VES	NO	0.0

Output Dir: C:\Users\dcailab\Desktop\Test\

< Back

Select / Deselect All Download

#### Flight Selection, Output Directory, and Download

LIMSS X					
			ownload Safety Data		
<b>D-4-</b>	Time -	Manine Assail	Cofety Auril	V-i Av-ii	Ent Minutes
04/09/2013	01:04:00	YES	YES	YES	10.5
04/08/2013	01:26:00	YES	YES	NO	2.0
04/07/2013	04:15:00	YES	YES	NO	3.1
04/07/2013	00:59:00	YES	YES	NO	0.9
04/06/2013	07:50:00	YES	YES	NO	0.8
04/06/2013				NO	0.0
04/06/2013	Stop 1. So	lost Elight (high	alight)	NO	0.5
04/05/2013	<u> 3160 I</u> . 36	iect Fugitt (ingi	mgnu).	NO	0.0
04/05/2013	-	8 . 8	0 /	NO	0.0
04/05/2013	06:21:00	YES	YES	NO	0.1
04/05/2013	05:52:00	YES	YES	NO	0.0
04/04/2013	04:39:00	YES	YES	NO	1.9
04/04/2013	01:10:00	YES	YES	NO	0.6
04/03/2013	01:47:00	YES	YES	NO	2.2
04/01/2013	00:31:00	YES	YES	NO	0.0
03/31/2013	11:11:00	YES	YES	NO	0.2
03/31/2013	06:13:00	YES	YES	NO	0.1
03/30/2013	06:09:00	YES	YES	NO	0.6
03/30/2013	05:40:00	YES	YES	NO	0.0
03/30/2013	03:59:00	YES	YES	NO	0.0
03/29/2013	07:17:00	YES	YES	NO	1.0
03/29/2013	00:29:00	YES	YES	NO	2.0
)3/28/2013	14:51:00	YES	YES	NO	0.0
03/28/2013	10:08:00	YES	YES	NO	0.0
03/27/2013	23:42:00	YES	YES	NO	3.1
03/27/2013	21:02:00	YES	YES	NO	0.0
J3/27/2013	11:25:00	YES	YES	NO	0.0
J3/27/2013	06:39:00	YES	YES	NO	2.0
J3/27/2013	01:54:00	NO	YES	NO	0.4
J3/25/2013	02:38:00	NO	YES	NO	0.0
J3/25/2013	02:32:00	NO	YES	NO	0.0
03/23/2013	04:22:00	NO			1.3
03/23/2013			Step 2: 0	Change (Jutput	0.3
$\mathbf{S}_{22212012}$	2. Salast "Dar	mland hutton	<u></u>	mange output	0.0
<u>Siep</u>	<u>J: Select</u> Dow	moad Dutton.	<b>D</b> '		0.0
2/21/2012			<b>D</b> 1rector	v to Desired Location.	• 0.0
3/21/2013	11:27:00	NO		J	0.0
3/21/2013	05:12:00	NO	YES	NO	0.0
3/20/2013	16:03:00	NO	YES	NO	0.4
3/20/2013	11:34:00	NO	YES	NO	0.0
0.2010	11.04.00	no	120	iio	0.0
utput Dir: C:\Uppero\degilab\De	cktop\Tect\				Chappen Output [

#### Aircraft Tail Number

🐱 LIMSS 14.16		
<u>File L</u> IMSS <u>F</u>	telp	
🔎 LIMSS 🔀		
Elapsed Time	Current Task Get Tail Number	Estimated Time Remaining
00:00:02	30%	00:00:06
00:00:03	Current Flight  Flight: 1 of 1 Tail: 0 mA Time: 04/09/2013 01:04:00	Unknown
	Total	
	Download Previously Downloaded Flights	_
00:00:03		Unknown
	Confirm Aircraft Tail Number Current Flight 04/09/2013 01:04:00 MDR Reported Tail Number 7?????? Designate Tail Number For This Flight 7?????? 0K Skip Cancel	
<u>Ste</u>	ep 4: The Confirm Aircraft Tail Number' window will	
ap	pear; confirm tail number and select 'OK'. <u>Note</u> : If no	
tai	l number listed, enter the seven (7) digit aircraft tail	
nu	mber.	

#### Status of Downloaded Flight

😒 UMSS 14.16							
<u>File LIMSS H</u> elp							
🔎 LIMSS 🛛							
		Do	wnload Safety Data				
					st Minutes 🔺		
<u>Step</u>	Step 5: The 'Download Flights' window will appear and provide the Flight						
Do	wnloaded results, sele	ct 'OK' is resul	ts are successf	ul If 'unsuccessful'	then 0.7		
	willoaded results, sele			an in <u>ansaccessian</u> ,			
t#01	blochoot Contact th	A LISACDC D	CATI ab if upo	bla to an accordingly	0.4		
	idieshool. Contact in	e USACIC, D	CAI Lad II ulla	ible to successfully	0.0		
1	1 1 (1) 1 ( ()1				0.0		
dov	vnload flight files.				0.1		
04/04/2013	04:39:00	<u>×=×</u>	VEX	NO	1.6		
04/04/2013	01:10:00	Download Flights	×	NO	0.5 =		
04/03/2013	01:47:00		4 Elizabet Second	NO	1.9		
04/01/2013	00:31:00		i right round	NO	0.0		
03/31/2013	11:11:00		Net Result: 1 Flight Downloaded	NO	0.1		
03/31/2013	06:13:00		استغاد	NO	0.1		
03/30/2013	06:09:00			NO	0.5		
03/30/2013	05:40:00			NO	0.0		
03/30/2013	03:59:00			NO	0.0		
03/29/2013	07:17:00			NO	0.8		
03/29/2013	00:29:00			NO	1.6		
03/28/2013	14:51:00			NO	0.0		
03/28/2013	10:08:00			NO	0.0		
03/27/2013	23.42.00			NO	2.0		
03/27/2013	21.02.00			NO	0.0		
03/27/2013	06:39:00			NO	1.6		
03/27/2013	01:54:00	ОК	Details	NO	0.3		
03/25/2013	02:38:00			NO	0.0		
03/25/2013	02:32:00	NO	YES	NO	0.0		
03/23/2013	04:22:00	NO	YES	NO	1.1		
03/23/2013	02:22:00	NO	YES	NO	0.2		
03/23/2013	02:07:00	NO	YES	NO	0.0		
03/21/2013	12:41:00	NO	YES	NO	0.0		
03/21/2013	12:34:00	NO	YES	NO	0.0		
03/21/2013	12:02:00	NO	YES	NO	0.0		
03/21/2013	11:27:00	NO	YES	NO	0.0		
03/21/2013	05:12:00	NO	YES	NO	0.4		
03/20/2013	10:03:00	NO	TES VES	NO	0.0		
03/20/2013	11.34.00	NO	TES	NO	0.0 •		
Output Dir: C:	Users\dcailab\Desktop\Test\				Change Output Dir		
		< Back	Select / Deselect All Download	3			
1							