

A1. DADISP PROCESSING GUIDE**N 9 3 - 2 6 9 4 9****DADiSP PROCESSING GUIDE****M. J. B. Rogers****7 October 1992**

The following is a guide for DADiSP software, intended for use by the Lambda Point Experiment Team during and after the USMP-1 mission. DADiSP is a Data Analysis and Display Software developed and marketed by DSP Development Corporation, Cambridge, Massachusetts. This guide is intended to be used in addition to the DADiSP Worksheet User Manual and Reference Manual which are supplied by the company with the software. Technical support for DADiSP is available from DSP at (617) 577-1133.

Access to DADiSP on ACAP EGSE is being provided to the LPE team during USMP-1 for off-line processing of SAMS data.

TO GET FROM DOS PROMPT TO DADISP WORKING ENVIRONMENT (A WORKSHEET)

DISPLAY OR HIGHLIGHTED OPTION	ACTION TO TAKE	RESULT
DOS PROMPT C:>	CD SAMS	CHANGES TO SAMS DIRECTORY
C:\SAMS>	DADISP	OPENS DADISP SOFTWARE PACKAGE
LIST OF AVAILABLE LABBOOKS / OPEN HIGHLIGHTED ON BAR MENU	ENTER TO OPEN LABBOOK AND TYPE OR SELECT LABBOOK OF INTEREST / SEE * BELOW FOR OTHER OPTIONS ON BAR MENU	OPENS LABBOOK OF INTEREST
LIST OF DATASETS AND WORKSHEETS / WORKSHEET HIGHLIGHTED ON BAR MENU	ENTER TO OPEN WORKSHEET, THE WORKING ENVIRONMENT / SEE ** BELOW FOR OTHER OPTIONS ON BAR MENU	OPENS WORKSHEET OF INTEREST

***BAR MENU OPTIONS UPON ENTERING DADISP**

*BAR MENU OPTION	ASSOCIATED ACTION / OPTION	POTENTIAL USES
OPEN	OPENS LABBOOK BASED ON CLICKED UPON OPTION OR TYPED SELECTION	ACCESS LABBOOK OF INTEREST
CREATE	CREATES A NEW LABBOOK	CREATE LABBOOK FOR NEW WORK
DIRECTORY	MOVE TO DIFFERENT DOS DIRECTORY	ACCESS LABBOOKS SAVED IN LOCATION OTHER THAN C:\DSP
UTILITIES	COPY - COPY LABBOOK	DO WORK WITH DIFFERENT DATA BASED ON WORK IN ANOTHER LABBOOK
	DELETE - DELETE LABBOOK	
	LOAD - LOAD COMMAND FILE	COMMAND FILES CAN BE WRITTEN TO PERFORM OPERATIONS
EXIT	EXIT TO DOS	

****BAR MENU OPTIONS UPON ENTERING A LABBOOK**

**BAR MENU OPTIONS	ASSOCIATED ACTION / OPTION	POTENTIAL USES
WORKSHEET	OPENS WORKSHEET BASED ON CLICKED UPON OPTION OR TYPED SELECTION	WORKSHEETS ARE THE BASIC WORKING ENVIRONMENT
UTILITIES	DELETE - DELETE SELECTED DATASET OR WORKSHEET	
	IMPORT (DATA)	IMPORT DATA FILE FROM DIRECTORY
	EXPORT (DATA)	EXPORT DATA FILE TO DIRECTORY
	COPY - COPY SELECTED DATASET OR WORKSHEET	
INDEX	LISTS CONTENTS OF SELECTED DATASET	ALLOW USER TO SEE WHICH DATA SERIES ARE IN A SELECTED DATASET
CLOSE	CLOSES CURRENT LABBOOK	

*****BAR MENU OPTIONS UPON ENTERING A WORKSHEET**

***BAR MENU OPTIONS	ASSOCIATED ACTION / OPTION	POTENTIAL USES
LOAD	LOADS AN EXISTING WORKSHEET	CONTINUE PREVIOUS WORK OR USE EXISTING WORKSHEET AS PROCESSING GUIDE
SAVE	SAVES CURRENT WORKSHEET	SAVE FOR CONTINUED WORK OR AS PROCESSING GUIDE
ADD	ADD WINDOWS TO WORKSHEET	CALCULATIONS ARE PERFORMED AND PLOTTED IN SEPARATE WINDOWS
REMOVE	REMOVE WINDOWS FROM WORKSHEET	REMOVE UNNECESSARY WINDOWS AND CUSTOMIZE WORKSHEET STYLE
ENTER	ENTER WINDOW IN WORKSHEET ENVIRONMENT	NECESSARY TO HAVE WINDOW SELECTED TO WORK IN IT; ALSO DONE BY CLICKING IN WINDOW
CLOSE	CLOSES CURRENT LABBOOK	

FUNCTION KEYS FOR USE IN WORKSHEET ENVIRONMENT

F1	ON-LINE HELP
F2	DISPLAY BACKGROUND (HEADER) INFORMATION FOR SELECTED WINDOW (THESE VALUES ARE SET WHEN DATA FILE IS IMPORTED)
F3	ACTIVATES LINE EDITOR FOR SELECTED WINDOW
F4	OVERPLOT - ALLOWS SEVERAL WINDOWS TO BE PLOTTED IN ONE WINDOW
F5	TOGGLES THROUGH DIFFERENT AXIS SCALE OPTIONS
F6	PUTS VARIOUS GRIDS ON PLOT
F7	TOGGLES BETWEEN DIFFERENT DISPLAY OPTIONS (LINE PLOT, BAR GRAPH, TABLE VIEW)
F8	LOAD DATASET
F9	SAVE DATASET
F10	ZOOM; ONCE ZOOMED, F9 PROVIDES CROSSHAIRS WHICH CAN BE MOVED BY MOUSE OR ARROW KEYS FOR FINER CONTROL, F9 AGAIN LOCKS FIRST CROSSHAIRS AND PROVIDES A SECOND SET; POSITIONS IN DATA FILE AND POSITION RELATIVE TO FIRST CROSSHAIR, IF APPLICABLE, DISPLAYED AT BOTTOM OF SCREEN. RIGHT MOUSE BUTTON OR ESC KEY REMOVES CROSSHAIRS AND ZOOM.

MAIN MENU**HELP****LOAD AND SAVE DATA****EDIT/REDUCE DATA****GRAPHICAL VIEWS****CREATE NEW VIEW****VIEW CONTROLS****SET UNITS****SET DELTA OFFSET****SET COLORS****SET SCALE INFORMATION****MATH AND MATRICES****STATISTICS****ANALYZE PEAK****FFT ANALYSIS****WORKSHEET****PRINTS AND PLOTS****OPTIONAL MODULES**

TYPICAL DADiSP PROCESSING SCHEME FOR LPE DURING USMP-1**SETTING UP A DADiSP PROCESSING GUIDE****ENTER DADiSP****CREATE LABBOOK - LPE_GUIDE****OPEN - LPE_GUIDE****UTILITIES - IMPORT - DATA FILE (AT 250 Hz SAMPLING FREQUENCY) FORMED
BY CONVERT ROUTINE, HEADER FILE SET UP BY
CONVERT, CARRIAGE RETURN****WORKSHEET - ADD - 9 ENTER****W1 - CLICK IN W1 TO ACTIVATE WINDOW****F8 TO LOAD X-AXIS SERIES IN W1, SELECT DATASET****W2 - W1-MEAN(W1) - DEMEANS W1****W3 - (PSD(W2)/4)*(LENGTH(W2))/250****CALCULATES AND PLOTS PSD OF DEMEANED DATA SUCH
THAT $(g_{rms})^2 = \int PSD$** **W4-W9 REPEAT WITH Y- AND Z- AXIS DATA****SAVE - PSD_GUIDE****SAVES WORKSHEET TO BE USED AS PROCESSING GUIDE****SELECT EXIT/CLOSE FROM BAR MENU****CLICK RIGHT MOUSE BUTTON****HIT ESC KEY****THE ABOVE ARE THREE WAYS TO GET OUT OF DADiSP**

TYPICAL DADiSP PROCESSING SCHEME FOR LPE DURING USMP-1**USING A DADiSP PROCESSING GUIDE****ENTER DADiSP****OPEN - LPE_GUIDE****UTILITIES - IMPORT - NEW DATA FILE****WORKSHEET - LOAD - PSD_GUIDE****W1 - CLICK TO ACTIVATE****F8 - TO LOAD NEW X-AXIS SERIES FROM DATASET****W2/W3- NEW DATA WILL PROPAGATE THROUGH WINDOWS****CONTINUE BY LOADING Y- AND Z- AXIS DATA INTO W4 AND W7****ADDITIONAL PROCESSING****NARROW BAND SPECTRAL ANALYSIS****CUMULATIVE SPECTRAL ANALYSIS****NARROW BAND g_{rms}** **DIFFERENCING OF SPECTRA****COMPARISON OF SPECTRUM OF LONG TIME WINDOW TO
AVERAGED SPECTRA OF SUCCESSIVE TIME WINDOWS**

A2. ACAP POCC OPERATIONS PROCEDURES

ACAP Sun Operations for USMP-1

Desired Operation/Information	Procedure
real-time sun ethernet address	128.158.29.121 (samson1)
real-time sun login	sams
real-time sun password	*****
real-time directories of interest	/home/samson1/sams : working directory /home/samson1/sams/data: data directory note that data directory is a common directory with real-time 486
play back sun ethernet address	128.158.29. (samson2)
play back sun login	sams
play back sun password	*****
play back directories of interest	/home/samson2/sams : working directory /home/samson2/sams/data: data directory note that data directory is a common directory with real-time 486
starting shell routine to run real-time or playback recording/processing systems	type sams2rt, wait for data stream to start
necessary input for initialization	bias, temperature, a0, and a1 for x, y, z (can be changed anytime during run)

recognizing data loss	status check should identify short term bad data LOS will result in DQM status=3 response upon status check LOS will also result in zero values being passed to peak value plots
formation of data files	done automatically through shell program, default data file length is 5 minutes, can set to lengths of 1 min to 60 min upon startup of shell routine or anytime during run; peak value data file default length is 30 min, can set from 1 min to 60 min
data file format and naming convention	see attached sheets

ACAP 486 Operations for USMP-1

Desired Operation/Information	Procedure
real-time 486 LOGIN	sams
real-time 486 PASSWORD	*****
play back 486 LOGIN	sams
play back 486 PASSWORD	*****
real-time 486 ethernet address	128.158.29.125 (delilah_1)
play back 486 ethernet address	(delilah_2)
directories of interest	c:\sams\acap processing directory e: data directory (common with sun \data)
accessing (forming) data files from Sun	in acap directory type CONVERT to start program which prompts for start time, axes, engineering, peak value, total time information
starting and running dadisp	see DADISP operations sheet

Sun Disk Storage Naming and Format Convention

Engineering Unit (X, Y, and Z axis) data

Variable length files: 5 minute default, can be set to lengths 1 minute to 60 minutes

Name: RDHHMMSS.EU or PDHHMMSS.EU

where first character **R** denotes real-time data and **P** denotes playback data

the **D** denotes mission day and is a hex character

hours, minutes, and seconds (HHMMSS) are ASCII characters

File type: binary

Units:

Format: T₁ (hhmmss)
 TEMP_{x,y,z}
 X₁
 X₂
 X₃
 .
 .
 .
 X₂₅₀
 Y₁
 Y₂
 Y₃
 .
 .
 .
 Y₂₅₀
 Z₁
 Z₂
 Z₃
 .
 .
 .
 Z₂₅₀
 STATUS WORDS

Peak Value Data $(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$

Variable length files: 30 minute default, can be set to lengths 1 minute to 60 minutes

Name: RDHHMMSS.MA or PDHHMMSS.MA

where first character **R** denotes real-time data and **P** denotes playback data

the **D** denotes mission day and is a hex character

hours, minutes, and seconds (HHMMSS) are ASCII characters

File type: Floating point

Units:

Format:

T ₁	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$
T ₂	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$
T ₃	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$
.	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$
.	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$
.	$(X_{1MAX}^2+Y_{1MAX}^2+Z_{1MAX}^2)^{1/2}$

MALFUNCTION	PROCEDURE
<p>REAL-TIME SUN SYSTEM CRASH WHILE AOS R/T DATA FLOWING NO P/B DATA FLOWING</p>	<ol style="list-style-type: none"> 1) RE-BOOT R/T SYSTEM <ol style="list-style-type: none"> a) RE-BOOT SUCCESSFUL - CONTINUE AS IS b) RE-BOOT UNSUCCESSFUL - PROCEED TO STEP 2) 2) EXIT AND RESTART DATA COLLECTION PROGRAM ON P/B SUN SO THAT IT IS SET TO RECEIVE R/T DATA (NECESSARY FOR APPROPRIATE FILE NAMES) 3) SWITCH REAL-TIME DATA FLOW BETWEEN SUN SYSTEMS 4) RE-BOOT CRASHED SUN <ol style="list-style-type: none"> a) RE-BOOT SUCCESSFUL - RESTART DATA COLLECTION PROGRAM ON RE-BOOTED SUN TO RECEIVE P/B DATA (DO NOT SWITCH BACK UNLESS ANOTHER PROBLEM COMES UP OR THERE IS A CONVENIENT TIME TO DO SO, i.e. LOS AND NO R/T OR P/B DATA FLOWING) b) RE-BOOT UNSUCCESSFUL - LEAVE SET-UP AS IS AND CONTINUE TO TRY SUN RE-BOOT; MAY BE NECESSARY TO CONTACT EB LAB PERSONNEL OR SUN TECHNICAL SUPPORT FOR ADVICE; NOTE THAT THIS MEANS THAT P/B DATA CANNOT BE RECEIVED SO ARRANGE TO HAVE P/B DATA SENT AFTER SUN RE-BOOTED (SUBMIT A PDRF THROUGH LPE WHEN SUN RE-BOOTED; MUST KEEP TRACK OF LOS TIMES WHILE SUN IS DOWN)

<p>REAL-TIME SUN SYSTEM CRASH WHILE LOS</p> <p>NO R/T DATA FLOWING</p> <p>NO P/B DATA FLOWING</p>	<p>1) MORE THAN 5 MINUTES TO AOS</p> <p>a) RE-BOOT REAL-TIME SUN WITHOUT SWITCHING DATA FLOW</p> <p>b) RE-BOOT SUCCESSFUL - CONTINUE AS IS</p> <p>c) RE-BOOT UNSUCCESSFUL - FOLLOW R/T CRASH WHILE AOS PROCEDURE STARTING AT STEP 2)</p> <p>2) LESS THAN 5 MINUTES TO AOS</p> <p>FOLLOW R/T CRASH WHILE AOS PROCEDURE STARTING AT STEP 1)</p>
<p>REAL-TIME SUN SYSTEM CRASH WHILE LOS</p> <p>NO R/T DATA FLOWING</p> <p>P/B DATA FLOWING</p>	<p>1) LESS THAN 5 MINUTES TO AOS - FOLLOW PROCEDURES FOR R/T CRASH WHILE AOS STARTING AT STEP 1)</p>

NOTE THAT SUN CRASH RECOVERY PROCEDURES ARE BASED ON THE ASSUMPTION THAT RECEIVING REAL-TIME DATA IS A HIGHER PRIORITY THAN PLAY BACK DATA

MALFUNCTION	PROCEDURE
PLAY BACK SUN SYSTEM CRASH R/T DATA FLOWING R/T DATA NOT FLOWING	1) RE-BOOT PLAY BACK SUN 2) ONCE SYSTEM IS RUNNING, HAVE LPE SUBMIT A PDRF (OD) TO RECOVER ANY LOST DATA

MALFUNCTION	PROCEDURE
REAL-TIME SUN MONITOR FAILURE R/T DATA FLOWING OR NOT P/B DATA FLOWING OR NOT	1) REPLACE R/T MONITOR WITH SPARE 2) RECONFIGURE R/T SYSTEM AND MONITOR AS NEEDED
PLAY BACK SUN MONITOR FAILURE R/T DATA FLOWING P/B DATA FLOWING OR NOT	1) HOOK UP SPARE MONITOR TO P/B SUN 2) RECONFIGURE P/B SYSTEM AND MONITOR AS NEEDED
REAL-TIME 486 MONITOR FAILURE	<ul style="list-style-type: none"> • HOOK UP SPARE FROM DATA CENTER
PLAY BACK 486 MONITOR FAILURE	<ul style="list-style-type: none"> • HOOK UP SPARE FROM DATA CENTER
OFF-LINE 486 MONITOR FAILURE	<ul style="list-style-type: none"> • HOOK UP SPARE FROM DATA CENTER
REAL-TIME SUN FILE SERVER FAILURE	1) RE-BOOT R/T SUN a) RE-BOOT SUCCESSFUL - CONTINUE AS IS b) RE-BOOT BRINGS SYSTEM UP BUT FILE SERVER STILL SEEMS TO BE DOWN i) CONTACT SUN TECHNICAL SUPPORT ii) CONTACT DIANE JOHNSON AT SUN TO BORROW ONE
PLAY BACK SUN FILE SERVER FAILURE	1) RE-BOOT P/B SUN a) RE-BOOT SUCCESSFUL - CONTINUE AS IS b) RE-BOOT BRINGS SYSTEM UP BUT FILE SERVER STILL SEEMS TO BE DOWN i) CONTACT SUN TECHNICAL SUPPORT ii) CONTACT DIANE JOHNSON AT SUN TO BORROW ONE

REAL-TIME SUN TAPE DRIVE FAILURE	<ol style="list-style-type: none"> 1) COORDINATE SCHEDULING OF TAPE ARCHIVING SO THAT ONE TAPE DRIVE CAN BE USED FOR BOTH R/T AND P/B 2) SHOULD BOTH TAPE DRIVES FAIL <ol style="list-style-type: none"> a) CONTACT SUN TECHNICAL SUPPORT b) CONTACT DIANE JOHNSON AT SUN TO BORROW ONE
PLAY BACK SUN TAPE DRIVE FAILURE	<ol style="list-style-type: none"> 1) COORDINATE SCHEDULING OF TAPE ARCHIVING SO THAT ONE TAPE DRIVE CAN BE USED FOR BOTH R/T AND P/B 2) SHOULD BOTH TAPE DRIVES FAIL <ol style="list-style-type: none"> a) CONTACT SUN TECHNICAL SUPPORT b) CONTACT DIANE JOHNSON AT SUN TO BORROW ONE
REAL-TIME 486 CRASH	<ol style="list-style-type: none"> 1) REBOOT R/T 486 2) RE-BOOT SUCCESSFUL - CONTINUE AS IS 3) RE-BOOT UNSUCCESSFUL - SWITCH R/T AND OFF-LINE 486 AND BRING IN SPARE FROM DATA CENTER
PLAY BACK 486 CRASH	<ol style="list-style-type: none"> 1) REBOOT P/B 486 2) RE-BOOT SUCCESSFUL - CONTINUE AS IS 3) RE-BOOT UNSUCCESSFUL - SWITCH P/B AND OFF-LINE 486 AND BRING IN SPARE FROM DATA CENTER
OFF-LINE 486 CRASH	<ol style="list-style-type: none"> 1) REBOOT OFF-LINE 486 2) RE-BOOT SUCCESSFUL - CONTINUE AS IS 3) RE-BOOT UNSUCCESSFUL - BRING IN SPARE FROM DATA CENTER
VIDEO RECORDER FAILURE	<ul style="list-style-type: none"> • SWITCH WITH SPARE FROM DATA CENTER

MALFUNCTION	PROCEDURE
<p>INTERRUPTED DATA FLOW NOTED ON REAL-TIME SYSTEM (BESIDES LOS)</p>	<p>1) CHECK DATA BOX FOR DATA FLOW INDICATION</p> <ul style="list-style-type: none"> a) DATA FLOW LIGHT NOT FLASHING (DATA NOT FLOWING) - MAKE SURE DATA ARE EXPECTED ON PARTICULAR SYSTEM (i.e., CHECK FOR AOS/LOS SITUATION); IF DATA ARE EXPECTED, CONTACT SYS CON ON POCC OPS LOOP b) DATA FLOW LIGHT IS FLASHING, BUT DATA BEING RECEIVED IS "BAD," <ul style="list-style-type: none"> i) CONTACT SAMS TEAM (SCI LOOP 2) TO CHECK IF THIS IS A SAMS RECORDING PROBLEM, IF SO LET SAMS HANDLE IT ii) IF NOT A SAMS SYSTEM PROBLEM, AND STILL RECEIVING "BAD" DATA, CONTACT SYS CON ON POCC OPS LOOP c) DATA FLOW LIGHT IS FLASHING, BUT NO DATA BEING RECEIVED, PROBABLY EGSE PROBLEM <ul style="list-style-type: none"> i) CHECK COMPUTER CONNECTIONS AND TIGHTEN LOOSE PARTS, AS NECESSARY ii) EXIT DATA COLLECTION PROGRAM AND RESTART iii) EXIT DATA COLLECTION PROGRAM AND RE-BOOT SYSTEM iv) FOLLOW MAL PROCEDURES FOR SYSTEM CRASH FOR APPROPRIATE R/T - P/B DATA FLOW SITUATION v) CALL SOMEONE <p>2) SUBMIT OD PDRF THROUGH LPE FOR LOST DATA</p>

SWITCHING SUN SYSTEMS BETWEEN REAL-TIME AND PLAY BACK DATA	1) SWITCH CHANNELS ON CONTROL BOARD 2) REQUEST SWITCH FROM SYS CON ON POCC OPS LOOP
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MALFUNCTION	PROCEDURE
VIDEO FAILURE	<ul style="list-style-type: none"> • SUBMIT VIDEO PDRF • FORMS IN ACAP OPERATIONS NOTEBOOK
HVODS FAILURE	<ul style="list-style-type: none"> • FOLLOW PROCEDURE IN POH - SOP 1.7.1 - CONTACT MARSHALL COMM ON POCC OPS LOOP
POCC TERMINAL FAILURE	<ul style="list-style-type: none"> • FOLLOW PROCEDURE IN POH - SOP 1.7

****NOTE - SEE TABLE 1.7-I (p. 1.7-2) IN POH FOR SUMMARY OF PROCEDURES FOR POCC EQUIPMENT PROBLEMS**

AP POCC LOGBOOK

ET	LOG NOTE
T: S GMT: D	SIMULATION START
	ORBITER TO REACH CONJUNCTION WITH TURKISH SATELLITE AT 4/23; MANEUVER WILL BE NECESSARY; OMS BURN OR PRCS BURN PROPOSED FOR IMU ALIGN PERIOD SCHEDULED AT 4/19; IF WAIT LONGER THAN THAT, WILL HAVE TO DO BIGGER BURN. PROPOSED BURN IS +X PRCS OF 2 FT/SEC, DURATION 1-2 SEC
	REQUEST FROM LPE TO INFORM THEM OF ACCELERATION PEAK VALUES ASSOCIATED WITH MANEUVER
	CALLED SIM SUP (0424) TO REQUEST GUIDANCE ON PROVIDING LPE WITH ACCELERATION VALUES (CAN BE GET ESTIMATED VALUES FROM ANYONE); RESPONSE WAS TO MAKE OUR OWN ESTIMATE
	CONTACT POL TO REQUEST INFORMATION ON UPCOMING MANEUVER BURN: PRCS 1-2 FT/SEC, DURATION OF A COUPLE OF SECONDS, STILL SET FOR 4/19 IMU ALIGN TO OCCUR AFTER MANEUVER
19	PRCS MANEUVER START
	INFORMED BY SIM TEAM TO NOTIFY ANYONE WHO INQUIRES THAT PRCS BURN CAUSED LARGER THAN EXPECTED ACCELERATIONS

A5. ACAP STANDARD PDRF FORM

PDRF FORM (VIDEO)

PDRF	USMP-1	MET:
ABCD-000		
Opt:		
PHONE (205)544-8697	ROOM SOA-M	AUTHOR NEEDED REQUEST VIDEO
START/STOP DATA TIME: GMT/MET	START:	STOP:
VIDEO SOURCE: NASA SELECT	PB DIST: (MONITOR/GSE)	
PB AUD: (W or W/O)	DUB: (W or W/O)	TIMING) TAPE TYPE: VHS 3/4"
USER COMMENTS:		
S=SUBMIT/C=CANCEL-->		
DFA ACTION	PRIORITY-	EXECUTE: START STOP
DFA NOTES:		
ACTIONEE MTV	IMPLEMENTED	CLOSEOUT
NOTES:		

E=REVIEW J=STATUS K=CATEG L=MESSAGES M=STATISTICS N=READ Y=MORE Z=MENU