Higher Level Commands implemented in In house CMS

1. Command for User & sub-array creation issued from Online_v2 terminal :

1.	create	This command will create user & subarray with antenna in that particular group user input 0 => user & sub-array will created through file input user input 1 => user & sub-array will created through terminal input
2.	add	This command will add user,sub-array & antenna in the particular group
3.	cmd2sub	This command will send send command to the particular group of antenna
4.	delusr	This command will delete particular group user along with all information
5.	showuser	This command will display information about particular user

2. DAS command issued from Online_v2 terminal :

1.	dasinit	This command will Initialize DAS system
2.	Addp	This command will add project file which will be send to DAS system
3.	delprj	This command will delete the project file
4.	startscan	This command will start scanning
5.	stopscan	This command will stop scanning
6.	finish	This command will halt DAS system

3. Antenna command issued from Online_v2 terminal :

To give command to a particular antenna we have followed a particular format :
For example :

1.	C00 Sentinel init 1st string will be Antenna name 2nd string will be sub-system name 3rd string will be sub-system command

4. Sub-system commands :

4.1 Sentinel system commands

No.	Command Name	Description	Argument
1.	Init	Initialize the system	-
2.	Mon	Monitor the health of the system	-
3.	set	Set the system as per the Argument	dmask Ch1 Ch2
4.	reset	Reset the system	-

4.2 Front End system commands

No.	Command Name	Description	Argument
1.	Init	Initialize the system	-
2.	Mon	Monitor the health of the system	-
3.	set	Set the system as per the Argument	band_sel Ch1 Ch2 slr_attn Ch1 Ch2 channel Ch1 Ch2 sub_band_sel Ch1 Ch2 rf Ch1 Ch2 cal_ns Ch1 Ch2
4.	reset	Reset the system	-

4.3 Fiber Optics system commands

No.	Command Name	Description	Argument
1.	Init	Initialize the system	-
2.	Mon	Monitor the health of the system	-
3.	set	Set the system as per the Argument	rf_attn Ch1 Ch2
4.	reset	Reset the system	-

4.4 GMRT Analog Backend system commands

No.	Command Name	Description	Argument
1.	Init	Initialize the system	-
2.	Mon	Monitor the health of the system	-
3.	set	Set the system as per the Argument	reflo Ch1 Ch2 lo Ch1 Ch2 attn Ch1 Ch2 filter Ch1 Ch2 lpf Ch1 Ch2 source Ch1 Ch2 signal Ch1 Ch2 path Ch1 Ch2 channel Ch1 Ch2
4.	reset	Reset the system	-

4.5 Self Test system commands

No.	Command Name	Description	Argument
1.	Init	Initialize the system	-
2.	Mon	Monitor the health of the system	-
3.	set	Set the system as per the Argument	ss Ch1 //set spectrum spreader fdb Ch1 // set frequency doubler fdv Ch1 //set frequency divider
4.	reset	Reset the system	-

4.6 GMRT servo system commands

No.	Command Name	Description	Argument
1.	sendsacsrc	Send source information RA DEC to track routine	Source RA DEC
2.	goin	Inner Track	-
3.	goout	Outer Track	-
4.	trkon	Start Tracking	-
5.	trkoff	Stop Tracking	-
6.	coldstart		-
7.	hold	Hold Axis	Ax
8.	track	Track	Time,Ax,Ang1,Ang2
9.	position	Position Axis	Ax,Ang1,Ang2
10.	stow	Stow the antenna	Ax
11.	stow_release	Stow release	Ax
12.	stop	Stop	Ax
13.	abort	Abort tracking	
14.	close	Close	
15.	resethw	Reset Hardware	
16.	readangles	Read angles	
17.	readanavar	Read analog variables	
18.	readdigvar	Read digital variables	
19.	readantstatus	Read antenna status	
20.	readversion	Read version	
21.	readsetpara	Read set paramameters	

4.7 GMRT servo system commands (Yet to be Implemented)

No.	Command Name	Description	Argument
1.	TRKELOFF	track elevation offset	New track parameters
2.	TRKAZOFF	track azimuth offset	New track parameters
3.	TRKANTOFF	track azimuth, elevation offset	New track parameters
4.	TRKRAOFF	track right ascension offset	New track parameters
5.	TRKDECOFF	track declination offset	New track parameters
6.	SCANELSRC	scan src in el with derv=ipa,ptime=jpa	New track parameters
7.	SCANAZSRC	scan src in az with derv=ipa,ptime=jpa	New track parameters
8.	SCANRASRC	scan src in ra with derv=ipa,ptime=jpa	New track parameters
9.	SCANDEC	scan src in dec with derv=ipa,ptime=jpa	New track parameters

4.8 GMRT Feed positioning system commands

No.	Command Name	Description	Argument
1.	mvpos	move to the feed position	feed 610/150/1420/325
2.	loadparam	load parameters from fps.dat file	File name
3.	fpsinit	Initialize FPS system	-
4.	fpsnull	FPS NULL command	-
5.	set_tpoint	turning point position	Encoder count
6.	set_rampdcnt	Set ramp down count	Nb timer ticks
7.	set_low_rpm	Set lower RPM limit	Nb timer ticks
8.	set_brake_dd	Set break down diff	Nb enc. pulses
9.	set_rampupcnt	Set ramp up count	Nb timer ticks
10.	set_stoptimecnt	Set stop time count	Nb timer ticks
11.	set_max_pwm_cnt	Set Max PWM count	PWM count
12.	set_max_angle	Set MAX angle	Angle
13.	set_min_angle	Set MIN angle	Angle
14.	read_tpoint	Read turning point	
15.	read_rampdcnt	Read ramp down count	
16.	read_low_rpm	Read lower RPM limit	
17.	read_brake_dd	Read break down diff	
18.	read_rampupcnt	Read ramp up count	

19.	read_stoptimecnt	Read stop time count	
20.	read_max_pwm_cnt	Read stop time count	
21.	read_max_angle	Read MAX angle	
22.	read_min_angle	Read MIN angle	
23.	read_version	Read version	
24.	run_to_cal	Run to calibrate	
25.	free_run_tow	Free run towards	270/-10 deg
26.	run_to_preset	Run to preset	Target pos
27.	run_fine_tune	Run to fine tune	Target pos, PWM count
28.	password_run	Password run	
29.	reboot	reboot	
30.	fpsstop	stop	

DAS Command structure :

	sub array Num	cmd num	Cmd type	CMD	CMODE	Antenna mask		File location	
1.	0	0	das	init	8	7FFFFFFE	F	/home/teleset/gsb.hdr	// Init Command
2.	0	1	das	addp	8			/home/teleset/proj.hdr.user0	// ADD project command
3.	4	2	das	start				/home/teleset/scan.hdr.user4	// DAS Start command
4.	4	3	das	stop					// DAS Stop command
5.	0	4	das	delp	8				// Delete project command
6.	0	5	das	fini	8				// Finish command