ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
0 0 5	0 D 0	Engine Discrete									Bit 11-Chan. A/ Bit 12-Chan. B
0 2 5	0 4 D	Load SEL Control	NA	204700	11		100				
0 3 4	0 2 5	VOR/ILS Frequency						125	250		
0 3 5	0 2 5	DME Frequency						125	250		
0 5 2	0 0 4	Body Pitch Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
	0 3 8	Body Pitch Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
0 5 3	0 0 4	Body Roll Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
	0 3 8	Body Roll Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
0 5 4	0 0 4	Body Yaw Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
	0 3 7	Zero Fuel Weight (Kg)	Kg	655360	15		20	100	200		
	0 3 8	Body Yaw Acceleration	Deg/Sec^2	± 64	15		0.002	50 Hz	117 Hz		
0 6 0	0 3 C	Tire Pressure (Left Outer)	PSIA	1024	10		1.0	50	250		
0 6 1	0 0 2	ACMS Information									6-29
	0 0 B	Pseudo Range	Meters	± 268435456	20		256	200	1200		
	0 3 C	Tire Pressure (Left Inner)	PSIA	1024	10		1.0	50	250		
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
0 6 2	0 0 2	ACMS Information									6-29
	0 0 B	Pseudo Rang Fine	Meters	256	11		0.125	200	1200		
	0 3 C	Tire Pressure (Right Inner)	PSIA	1024	10		1.0	50	250		
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
0 6 3	0 0 2	ACMS Information									6-29
	0 0 B	Range Rate	M/S	± 4096	20		0.0039	200	1200		
	0 3 C	Tire Pressure (Right Outer)	PSIA	1024	10		1.0	50	250		
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
0 6 4	0 0 B	Delta Range	Meters	± 4096	20		0.0039	200	1200		
	0 3 C	Tire Pressure (Nose)	PSIA	1024	10		1.0	50	250		
0 6 5	0 0 B	SV Position X	Meters	±67108864	20		64	200	1200		
0 6 6	0 0 B	SV Position X Fine	Meters	64	14		0.0039	200	1200		
0 7 0	0 0 2	Reference Airspeed (Vref)	Knots	512	11		0.25	500	1000	1000	
	0 0 B	SV Position X	Meters	±67108864	20		64	200	1200		
	0 2 9	AC Frequency (Engine)	Hz	512	11		0.25	100	200		
	0 3 7	Hard Landing Magnitude #1	Lbs.		12		-	100	200		
	0 5 6	Reference Airspeed (Vref)	Knots	512	11		0.25	500	1000	1000	
	0 6 0	Reference Airspeed (Vref)	Knots	512	11		0.25	500	1000	1000	
	0 C C	Brakes - Metered Hyd. Pres. L (Normal)	PSIG	4096	12		1	50	100		#1 & 2 coded in SDI
0 7 1	0 0 2	Take-Off Climb Airspeed (V2)	Knots	512	11		0.25	500	1000	50	
	0 0 B	SV Position Y Fine	Meters	64	14		0.0039	200	1200		
	0 2 9	AC Frequency (Engine)	Hz	512	11		0.25	100	200		
	0 3 3	VBV	Deg	64	12		0.016	150	250		
	0 3 7	Hard Landing Magnitude #2	Lbs.		12		-	100	200		
	0 C C	Brakes-Metered Hyd.Pres.L (alt.)	PSIG	4096	12		1	50	100		#1 & 2 coded in SDI

ATTACHMENT 2
DATA STANDARDS

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Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
0 7 2	0 0 2	Rotation Speed (VR)	Knots	512	11		0.25	500	1000	1000	Revised by Supp 11
	0 0 B	SV Position Z	Meters	±67108864	20		64	200	1200		
	0 1 C	Stator Vane Angle	Deg/180	±180	11		0.1	100	200		
	0 2 9	AC Voltage (Engine)	Volts	256	10		0.25	100	200		
	0 2 F	Stator Vane Angle	Deg/180	±180	11		0.1	100	200		
	0 3 3	Stator Vane Angle	Deg	64	12		0.016	150	250		See Note [4]
	0 C C	Brakes-Metered Hyd.Pres.R (normal)	PSIG	4096	12		1	50	100		#1 &2 coded in SDI
0 7 3	0 0 2	V1 (critical engine failure speed)	Knots	512	11		0.25	100	200		
	0 0 B	SV Position Z Fine	Meters	64	14		0.0039	200	1200		
	0 1 C	Oil Quantity	cc	32768	8		128	100	200		
	0 2 9	Oil Quantity	US Pint	128	9		0.25	100	200		
	0 A 2	V2 (critical engine failure speed)	Knots	512	11		0.25	100	200		
	0 C C	Brakes-Metered Hyd.Pres.R (alt.)	PSIG	4096	12		1	50	100		#1 & 2 coded in SDI
	0 D 0	Engine Oil Quantity	US Pint	128	9		0.25				SDI 1=L/SDI 2=R
0 7 4	0 0 2	Zero Fuel Weight	Lbs.	1310720	15		40	500	1000	1000	
	0 0 B	UTC Measure Time	Seconds	10.0	20		9.536743µs	200	1200		
	0 2 C	Zero Fuel Weight	Lbs.	1310720	15		40	100	400		
	0 3 3	LP Compressor Bleed Pos. (3.0)	Inches	4	10		0.004	100	200		See Note [5]
	0 3 7	Zero Fuel Weight (lb)	Lbs.	1310720	15		40	100	200		
	0 5 6	Zero Fuel Weight	Lbs.	1310720	15		40	500	1000	1000	
	0 6 0	Zero Fuel Weight	Lbs.	1310720	15		40	500	1000	1000	
	1 1 4	Zero Fuel Weight	Lbs.	1310720	15		40	100	400		
0 7 5	0 0 2	Gross Weight	Lbs.	1310720	15		40	100	200		
	0 0 3	Gross Weight	Lbs.	1310720	15		40	100	200		
	0 0 B	Geodetic Altitude	Feet	131072	17		1.0	500	1000		
	0 2 9	AC Voltage (Alt. Sources)	Volts	256	10		0.25	100	200		
	0 2 C	Gross Weight	Lbs.	1310720	15		40	100	200		
	0 3 7	Gross Weight	Lbs.	1310720	15		40	100	200		
	0 3 E	Gross Weight	Lbs.	1310720	15		40	100	200		
	1 1 4	Aircraft Gross Weight	Lbs.	1310720	15		40	100	400		
0 7 6	0 0 B	GPS Height Above Ref.Ellipsoid	Feet	131072	17		1.0	25	50		
	0 0 B	GNSS Altitude (Msl)	Feet	±131072	20		0.125	200	1200		
	0 2 9	AC Voltage (Bus Bar)	Volts	256	10		0.25	100	200		
	0 3 7	Longitudinal Center of Gravity	% MAC	163.84	14		0.01	100	200		
	0 3 E	Longitudinal Center of Gravity	%	164	14		0.01	100	200		
	1 1 4	Aircraft Longitudinal Center of Gravity	Percent	163.84	14		0.01	100	200		
0 7 7	0 - -	Lateral Center of Gravity	MLb-in	128	17		0.001	100	200		
	0 0 2	Target Airspeed	Knots	512	11		0.25	100	200		
	0 0 B	GPS Hor/Vert Deviation	% F.S.	128	8		0.8	25	50		Revised by Supp 11
	0 2 9	AC Load (Engine)	%	256	8		1.0	100	200		
	0 3 7	Lateral Center of Gravity	% MAC	131.072	17		0.01	100	200		
	0 5 6	Target Airspeed	Knots	512	11		0.25	100	200		
	0 6 0	Target Airspeed	Knots	512	11		0.25	100	200		
	1 1 4	Zero Fuel Center of Gravity	Percent	163.84	14		0.01	100	200		
1 0 0	0 0 1	Selected Course #1	Deg/180	±180	12		0.05	167	333		6-27
	0 0 2	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 1 1	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 2 0	Sleected Course #1	Deg/180	±180	12		0.05	167	333		
	0 2 9	AC Load (Alt. Source)	%	128	8		1.0	100	200		
	0 5 6	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 6 0	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 3 7	Gross Weight (Kilogram)	Kilograms	655360	15		20	100	200		
	0 A 1	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 B 1	Selected Course #1	Deg/180	±180	12		0.05	167	333		
	0 B B	Outboard Flaps - PDU	Deg/180	±180	12		0.05	20	100		
1 0 1	0 0 2	Selected Heading	Deg/180	±180	12		0.05	31.3	62.5		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 0 B	HDOP	N/A	1024	15		0.031	200	1200		
	0 2 0	Selected Heading	Deg/180	±180	12		0.05	31.3	62.5		
	0 2 5	Selected Heading	Deg/180	±180	12		0.05	125	250		
	0 2 9	DC Current (TRU)	Amperes	256	8		1.0	100	200		
	0 5 A	FQIC	Lbs	4-65532	14		4	900	1100		
	0 A 1	Selected Heading	Deg/180	±180	12		0.05	31.3	62.5		
	0 B B	Inboard Flaps - PDU	Deg/180	±180	12		0.05	20	100		
	1 1 4	C/G Target	%	164	8		0.01	100	200		
1 0 2	0 0 2	Selected Altitude	Feet	65536	16		1.0	100	200		6-27
	0 0 B	VDOP	N/A	1024	15		0.031	200	1200		
	0 2 0	Selected Altitude	Feet	65536	16		1.0	100	200		
	0 2 9	DC Current (Battery)	Amperes	256	8		1.0	100	200		
	0 5 6	Selected Altitude	Feet	65536	16		1.0	100	200		
	0 6 0	Selected Altitude	Feet	65536	16		1.0	100	200		
	0 A 1	Selected Altitude	Feet	65536	16		1.0	100	200		
1 0 3	0 0 1	Selected Airspeed	Knots	512	11		0.25	100	200		6-27
	0 0 2	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 0 3	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 0 B	GNSS Track Angle	Deg	±108	15		0.0055	200	1200		
	0 1 B	Left/PDU Flap	Deg/180	±180	18		0.000687	100	200		
	0 2 0	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 2 9	DC Voltage (TRU)	Volts	128	9		0.25	100	200		
	0 5 6	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 6 0	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 A 1	Selected Airspeed	Knots	512	11		0.25	100	200		
	0 B B	Left Outboard Flap Position	Deg/180	±180	12		0.05	20	100		
1 0 4	0 0 1	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		6-27
	0 0 2	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		
	0 1 B	Right/PDU Flap	Deg/180	±180	18		0.000687	100	200		
	0 2 0	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		
	0 2 9	DC Voltage (Battery)	Volts	128	9		0.25	100	200		
	0 2 B	Selected Vertical Speed	Ft/Min	16384	14	UP	1	100	200		
	0 5 6	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		
	0 6 0	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		
	0 A 1	Selected Vertical Speed	Ft/Min	16384	10	UP	16	100	200		
	0 B B	Right Outboard Flap Position	Deg/180	±180	12		0.05	20	100		
1 0 5	0 0 2	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 1 0	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 1 B	Left/PDU Slat	Deg/180	±180	18		0.000687	100	200		
	0 2 0	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 2 9	Oil Temp. Input (IDG/CSD)	Deg C	2048	12		0.5	100	200		
	0 5 5	Selected Runway Heading	Deg	±180	11		0.1				
	0 5 6	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 6 0	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 A 1	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 B 0	Selected Runway Heading	Deg/180	±180	11		0.1	167	333		
	0 B B	Left Inboard Flap Position	Deg/180	±180	12		0.05	20	100		
1 0 6	0 0 2	Selected Mach	Mach	4096	12		1	31.3	200		6-27
	0 1 B	Right/PDU Slat	Deg/180	±180	18		0.000687	100	200		
	0 2 0	Selected Mach	Mach	4096	12		0.5	100	200		
	0 2 9	Oil Temp. Input (IDG/CSD)	Deg C	2048	12		0.5	100	200		
	0 5 6	Selected Mach	Mach	4096	12		1	31.3	200		
	0 6 0	Selected Mach	Mach	4096	12		1	31.3	200		
	0 A 1	Selected Mach	Mach	4096	12		1	31.3	62.5		
	0 B B	Right Inboard Flap Position	Deg/180	±180	12		0.05	20	100		
1 0 7	0 0 2	Selected Cruise Altitude	Feet	65536	16	UP	1	100	200		
	0 1 B	Flap/Slat Lever	Deg/180	±180	18		0.000687	100	200		
	0 B B	Flap Lever Position-median value	Deg/180	±180	18		0.000687	100	200		

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	0 3 7	Long. Zero Fuel Ctr of Gravity	% MAC	163.84	14		0.01	100	200		
	0 5 6	Selected Cruise Altitude	Feet	65536	16	UP	1	100	200		
	0 6 0	Selected Cruise Altitude	Feet	65536	16	UP	1	100	200		
1 1 0	0 0 1	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 0 2	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 0 B	GNSS Latitude	Deg	±180	20		0.000172	200	1200		
	0 1 0	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 1 1	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 2 0	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 A 1	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 B 1	Selected Course #2	Deg/180	±180	12		0.05	167	333		
	0 B B	Flap Lever Position - Center	Deg/180	180	18		0.000687	80	160		
1 1 1	0 0 B	GNSS Longitude	Deg	±180	20		0.000172	200	1200		
1 1 2	0 0 2	Runway Length	Feet	20480	11		10	250	500		
	0 0 B	GNSS Ground Speed	Knots	4096	15		0.125	200	1200		
	0 A 1	Selected EPR		4	12		0.001	100	200		
	0 A 1	Selected N1	RPM	4096	12		1	100	200		
	0 B B	Flap Lever Position - Left	Deg/180	±180	18		0.000687	80	160		
1 1 4	0 0 2	Desired Track	Deg/180	±180	12		0.05	100	200		6-27
	0 2 9	Brake Temp. (Left Inner L/G)	Deg C	2048	11		1	100	200		
	0 2 F	Ambient Pressure	PSIA	32	14		0.002	100	200		
	0 3 F	Pamb Sensor	PSIA	32	14		0.002	100	200		
	0 5 6	Desired Track	Deg/180	±180	12		0.05	100	200		
	0 6 0	Desired Track	Deg/180	±180	12		0.05	100	200		
	0 B B	Flap Lever Position - Right	Deg/180	±180	18		0.000687	80	160		
	0 C C	Wheel Torque Output	Lb./Ft.	16384	12		4	50	100		No. 5 to 8 in SDI
	1 0 A	Selected Ambient Static Pressure	PSIA	1.5-20.0	11		0.016	100	500		
	1 0 B	Selected Ambient Static Pressure	PSIA	1.5-20.0	11		0.016	100	500		
	1 3 A	Ambient Pressure	PSIA	32	14		0.002	100	200		
1 1 5	0 0 2	Waypoint Bearing	Deg/180	±180	12		0.05	31.3	62.5		
	0 2 9	Brake Temp. (Left Outer L/G)	Deg C	2048	11		1	100	200		
	0 2 F	Fuel Temperature	Deg C	512	11		0.25	100	200		
	0 3 F	Fuel Temperature	Deg C	512	11		0.25	100	200		
	0 5 6	Waypoint Bearing	Deg/180	±180	12		0.05	31.3	62.5		
	0 6 0	Waypoint Bearing	Deg/180	±180	12		0.05	31.3	62.5		
	0 B C	Fuel Temperature	Deg C	256	8		1	500	1000		
	0 C C	Wheel Torque Output	Lb./Ft.	16384	12		4	50	100		No. 1 to 4 in SDI – 6-26
1 1 6	0 0 2	Cross Track Distance	N.M.	128	15		0.004	31.3	62.5		6-27
	0 0 B	Horizontal GLS Deviation Rectilinear	Feet	24000	18		0.00915		100		
	0 2 9	Brake Temp. (Right Inner L/G)	Deg C	2048	11		1	100	200		
	0 5 5	Horizontal GLS Deviation Rectilinear	Feet	24000	18		0.00915		100		
	0 5 6	Cross Track Deviation	N.M.	128	15		0.004	31.3	62.5		
	0 6 0	Cross Track Deviation	N.M.	128	15		0.004	31.3	62.5		
	0 C C	Wheel Torque Output	Lb./Ft.	16384	12		4	50	100		No. 9 to 12 in SDI – 6-26
1 1 7	0 0 2	Vertical Deviation	Feet	2048	11		1.0	31.3	62.5		6-27
	0 0 B	Vertical GLS Deviation Rectilinear	Feet	1024	14		0.0625		100		
	0 2 9	Brake Temp. (Right Outer L/G)	Deg C	2048	11		1	100	200		
	0 5 5	Vertical GLS Deviation Rectilinear	Feet	1024	14		0.0625		100		
	0 5 6	Vertical Deviation	Feet	2048	11		1.0	31.3	62.5		
	0 6 0	Vertical Deviation	Feet	2048	11		1.0	31.3	62.5		
	0 C C	Wheel Torque Output	Lb./Ft.	16384	12		4	50	100		No. 13 to 16 in SDI – 6-26
1 2 0	0 0 2	Range to Altitude	N.M.	512	15		0.016	25	50		
	0 0 B	GNSS Latitude Fine	Deg	0.000172	11		8.38-E-8	200	1200		
	0 5 6	Range to Altitude	N.M.	512	15		0.016	25	50		
	0 6 0	Range to Altitude	N.M.	512	15		0.016	25	50		

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1 2 1	0 0 2	Horizontal Command Signal	Deg/180	±180	14		0.01	50	100		
	0 0 B	GNSS Longitude Fine	Degrees	0.000172	11		8.38-E-8 °	200	1200		
	0 2 5	Pitch Limit	Deg/180	±180	14		0.01	125	250		
	0 5 6	Horizontal Command Signal	Deg/180	±180	14		0.01	50	100		
	0 6 0	Horizontal Command Signal	Deg/180	±180	14		0.01	50	100		
1 2 2	0 0 2	Vertical Command Signal	Deg/180	±180	12		0.05	500	100		
	0 5 6	Vertical Command Signal	Deg/180	±180	12		0.05	500	100		
	0 6 0	Vertical Command Signal	Deg/180	±180	12		0.05	500	100		
1 2 3	0 0 2	Throttle Command	Deg/Sec	256	18		0.001	50	100		
1 2 4	0 A 5	Client Device for GNSS Receiver	Meters	8192	13		1		200		6-49
	1 E 2	Horizontal Alarm Limit	Meters	0-8190	13		1	800	1200		
1 2 6	0 0 2	Vertical Deviation (wide)	Feet	32768	15	above sel alt	1.0	31.3	62.5		
	0 5 6	Vertical Deviation	Feet	32768	15	above sel alt	1.0	31.3	62.5		
	0 6 0	Vertical Deviation	Feet	32768	15	above sel alt	1.0	31.3	62.5		
1 2 7	0 0 2	Selected Landing Altitude	Feet	65536	16	UP	1	100	200		
	0 1 B	Slat Angle	Deg/180	±180	12		0.05	100	200		6-11
	0 3 3	P14	PSIA	32	14		0.002	100	200		
	1 0 A	Fan Discharge Static Pressure	PSIA	1.5 - 30.0	11		0.016	100	500		
	1 0 B	Fan Discharge Static Pressure	PSIA	1.5 - 30.0	11		0.016	100	500		
	1 E 2	Vertical Alarm Limit	Meters	0-255	8		1	800	1200		6-50
1 3 0	0 0 B	Aut Horiz Integ Limit	N.M.	16	17		1.2E-4	200	1200		
	0 1 A	Fan Inlet Total Temperature	Deg C	128	11		0.06	100	200		
	0 1 C	Fan Inlet Total Temperature	Deg C	128	11		0.06	100	200		
	0 2 F	Fan Inlet Total Temperature	Deg C	128	11		0.06	100	200		
	0 3 5	Intruder Range							500		6-21 and ARINC 735
	0 3 F	Fan Inlet Total Temperature	Deg C	128	11		0.06	100	200		
	1 0 A	Selected Total Air Temperature	Deg C	-80 to 90	10		0.125	100	500		
	1 0 B	Selected Total Air Temperature	Deg C	-80 to 90	10		0.125	100	500		
	1 3 A	Inlet Temperature	Deg C	128	11		0.0625	100	200		
1 3 1	0 1 A	Fan Inlet Total Pressure	PSIA	32	13		0.004	100	200		
	0 1 C	Fan Inlet Total Pressure	PSIA	32	13		0.004	100	200		
	0 2 D	Fan Inlet Total Pressure	PSIA	32	13		0.004	100	200		
	0 2 F	Fan Inlet Total Pressure	PSIA	32	13		0.004	100	200		
	0 3 3	Fan Inlet Total Pressure	PSIA	32	13		0.004	100	200		
	0 3 5	Intruder Altitude							500		6-22 and ARINC 735
	1 3 A	Inlet Pressure	PSIA	32	13		0.004	100	200		
1 3 2	0 1 A	Exhaust Gas Total Pressure	PSIA	32	13		0.004	100	200		
	0 1 C	Exhaust Gas Total Pressure	PSIA	32	13		0.004	100	200		
	0 3 3	Exhaust Gas Total Pressure	PSIA	32	14		0.002	100	250		
	0 3 5	Intruder Bearing							500		6-23 and ARINC 735
1 3 3	0 0 B	Aut Vert Integ Limit	Feet	32,768	18		0.125	200	1200		
	0 1 A	Thrust Lever Angle	Deg/180	±180	12		0.05	100	250		
	0 2 F	Thrust Lever Angle	Deg/180	±180	12		0.05	25	50		
	0 3 F	Thrust Lever Angle	Deg/180	±180	12		0.05	25	50		
	1 0 A	Selected Throttle Lever Angle	Deg	90	11		0.088	31.3	100		
	1 0 B	Selected Throttle Lever Angle	Deg	90	11		0.088	31.3	100		
1 3 4	0 1 C	Power Lever Angle	Deg/180	±180	12		0.05	100	200		
	1 0 A	Throttle Lever Angle	Deg	±128	11		0.088	500	1000		
	1 0 B	Throttle Lever Angle	Deg	±128	11		0.088	500	1000		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	1 3 A	Throttle Lever Angle	Deg/180	±180	12		0.05	25	50		
1 3 5	0 1 C	Engine Vibration #1	in/sec	8	12		0.002	100	200		
	0 2 9	Engine Fan Vibration	% FS	128	7		1	100	200		
1 3 6	0 0 B	Vertical Figure of Merit	Feet	32,768	18		0.125	200	1200		
	0 1 C	Engine Vibration #2	in/sec	8	12		0.002	100	200		
1 3 7	0 1 B	Flap Angle	Deg/180	±180	12		0.05	100	200		6-11
	0 2 A	Flap Angle	Deg/180	±180	12		0.05	100	200		6-11
	0 2 F	Thrust Reverser Position Feedback	%	128	12		0.03	100	200		
	0 3 F	Thrust Reverser Position Feedback	%	128	12		0.03	100	200		
	1 0 A	Selected Thrust Reverser Position	%	-5 to 105	11		0.063	62.5	250		
	1 0 B	Selected Thrust Reverser Position	%	-5 to 105	11		0.063	62.5	250		
	1 4 0	Flap Angle	Deg	180	12		0.05	62.5	200		6-11
1 4 0	0 0 1	Flight Director - Roll	Deg/180	±180	12		0.05	50	100		6-27
	0 0 B	UTC Fine	Seconds	1	20		0.953674µs	200	1200		
	0 2 5	Flight Director - Roll	Deg/180	±180	10		0.02	125	250		
1 4 1	0 0 1	Flight Director - Pitch	Deg/180	±180	12		0.05	50	100		
	0 0 B	UTC Fine Fractions	Seconds	0.9536743µs	10		0.931225ns	200	1200		
	0 2 5	Flight Director - Pitch	Deg/180	±180	10		0.02	125	250		
1 4 2	0 0 2	Flight Director - Fast/Slow	Knots	32	12		0.008	31.3	62.5		6-27
	0 0 3	Flight Director - Fast/Slow	Knots	32	12		0.008	31.3	62.5		
	0 2 5	Flight Director - Fast/Slow	Knots	32	8		0.125	125	250		
1 4 3	0 0 1	Flight Director - Yaw	Deg/180	±180	12		0.05	50	100		
	0 4 1	HPA Command Word									See ARINC 741
	2 4 1	HPA Response Word									See ARINC 741
1 4 4	0 2 B	Altitude Error	Feet	8192	14	Above Cmd Alt	1.0	25	50		
	0 4 1	ACU/BSU Control Word									See ARINC 741
	3 4 1	ACU/BSU Response Word									See ARINC 741
1 4 5	0 0 2	TACAN Control	See Sec. 3.1.4					180	220		6-30
1 4 6	1 1 2	TACAN Control	See Sec. 3.1.4					180	220		
1 4 7	X X X	TACAN Control Word						100	200		
1 5 0	0 0 2	Universal Time Coordinate									6-12
	0 0 B	UTC	Hr:Min:S	±23:59:59	17		1.0sec	200	1200		
	0 3 1	Universal Time Coordinate						100	200		6-12
	0 5 6	Universal Time Coordinate									6-12
	0 6 0	Universal Time Coordinate									6-12
1 5 1	0 0 2	Localizer Bearing (True)	Deg/180	±180	11		0.1	167	333		
	0 2 7	MLS Azimuth Deviation									
	0 5 5	MLS AZ Deviation	mV	± 2400	15		0.0732				
	0 5 6	Localizer Bearing (True)	Deg/180	±180	11		0.1	167	333		
	0 6 0	Localizer Bearing (True)	Deg/180	±180	11		0.1	167	333		
1 5 2	0 2 7	MLS Elevation Deviation									
	0 3 8	Cabin Pressure	mB	2048	16		0.03125	62.5	125		
	0 4 1	Open Loop Steering									See ARINC 741
	0 5 5	MLS GP Deviation	mV	± 2400	15		0.0732				
	0 A D	Cabin Pressure	mB	2048	18		0.008	20	200		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
1 5 3	0 0 2	Maximum Altitude	Feet	65536	16	Above S.L.	1	500	1000	100	
	0 4 1	Closed Loop Steering									See ARINC 741
	0 5 5	MLS Selected Azimuth	Deg	0-359	9		1				
1 5 4	0 0 2	Runway Heading (True)	N.M.	512	16		0.008	83.3	167		
	0 2 7	MLS Auxiliary Data									
	0 5 5	MLS Max Selectable GP	Deg	± 51.1	9		1				
	0 5 6	Runway Heading (True)	N.M.	512	16		0.008	83.3	167		
	0 6 0	Runway Heading (True)	N.M.	512	16		0.008	83.3	167		
1 5 5	0 5 5	MLS Selected Glide Path	Deg	± 51.1	9		0.01				
1 6 2	0 1 2	ADF Bearing	Deg/180	±180	12		0.05	31.3	62.5		
	0 2 5	ADF brg left/right	Deg/180	±180	12		0.05	125	250		SDI-01=left/SDI-10=right
	0 2 9	Crew Oxygen Pressure	PSI	4096	12		1	100	200		
	0 5 5	MLS Basic Data Word 5	N/A	N/A	N/A		N/A				
	1 4 0	Density Altitude	Feet	1131072	16		2	250	500		
1 6 4	0 0 2	Minimum Descent Altitude (MDA)	Feet	8192	16		0.125	500	1000		
	0 0 3	Target Height	Feet	8192	16		0.125	500	1000		
	0 0 7	Radio Height	Feet	8192	16		0.125	25	50		6-13/6-27
	0 2 5	Radio Height	Feet	8192	12		2.0	125	250		
	0 3 B	Radio Height	VDC	32	11		0.015	150	250		Per ARINC 522A
	0 5 5	MLS ABS GP Angle	Deg	± 41	15		0.00125				
1 6 5	0 0 B	Vertical Velocity	Feet/Min	± 32768	15		1.0	200	1200		
	0 5 5	MLS ABS Azimuth Angle	Deg	± 82	16		0.00125				
1 6 6	0 0 7	RALT Check Point Dev	Feet	512	10		0.5	*	*		
	0 0 B	North/South Velocity	Knots	± 4096	15		0.125	200			
1 6 7	0 0 2	EPU Estimate Position Uncertainty (ANP) Actual Navigation Perf.	N.M.	0-128	16		0.00195				
1 7 1	0 0 2	Required Navigation Performance (RNP)	N.M.	0-128	16		0.001953				
	0 A 5	Vertical Alarm Limit (VAL) and SBAS System Identifier	Meters	256	8		1		200		
	X X X	Manu. Specific Status Word									See Attachment 10
1 7 3	0 1 0	Localizer Deviation	DDM	0.4	12		0.0001	33.3	66.6		6-6/6-27
	0 2 5	Localizer Deviation	DDM	0.4	10		0.0004	125	250		
	0 2 9	Hydraulic Quantity	%	128	7		1	100	200		
	0 3 B	Localizer Deviation	Dots	4	11		0.002	150	250		
	0 5 5	Localizer Deviation	DDM	± 0.4	12		0.0001				
	0 B D	Hydraulic Quantity	%	128	7		1	500	1000		
	0 D 0	Hydraulic Oil Quantity	US Pint	128	9		0.25				SDI 1= A/SDI 2= B
1 7 4	0 0 3	Delayed Flap Approach Speed (DFA)	Knots	512	11		0.25	100	200		
	0 0 B	East/West Velocity	Knots	± 4096	15		0.125	200	1200		
	0 1 0	Glideslope Deviation	DDM	0.8	12		0.0002	33.3	66.6		6-6/6-27
	0 2 9	Hydraulic Pressure	PSI	4096	12		1	100	200		
	0 3 B	Glideslope Deviation	Dots	4	11		0.0002	150	250		6-6/6-27
	0 5 5	Glide Slope Deviation	DDM	± 0.8	12		0.0002				
	0 D 0	Hydraulic Oil Pressure	PSI	4096	12		1.0				SDI 1= A/SDI 2= B
1 7 5	0 0 3	Economical Speed	Knots	1024	14		0.06	62.5	125		
	0 2 9	EGT (APU)	Deg C	2048	11		1	100	200		
	0 3 3	Hydraulic Pump Case Drain Temp	Deg C	256	12		0.06	100	200		
1 7 6	0 0 3	Economical Mach	Mach	4096	13		0.5	62.5	125		
	0 2 9	RPM (APU)	% RPM	256	9		0.5	100	200		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 3 8	Left Static Pressure Uncorrected, mb	mb	2048	18		0.008	20	200		
	0 5 A	Fuel Temperature - Set to Zero	Deg. C	512	11		0.25	100	200		
	0 A D	Static Pressure Left, Uncorrected, mb	mb	2048	18		0.008	20	200		
	1 1 4	Left Outer Tank Fuel Temp & Advisory Warning	Deg	± 512	11		0.25				
1 7 7	0 0 3	Economical Flight Level	Feet	131072	17		1.0	31.3	62.5		
	0 2 9	Oil Quantity (APU)	US Pint	128	9		0.25	100	200		
	0 3 8	Right Static Pressure, Uncorrected, mb	mb	2048	18		0.008	20	200		
	0 5 5	Distance to LTP/FTP	Nmiles	± 512	16		0.007812				
	0 5 A	Fuel Temp. Left Wing Tank	Deg C	512	11		0.25	100	200		
	0 A D	Static Pressure Right, Uncorrected, mb	mb	2048	18		0.008	20	200		
	1 1 4	Inner Tank 1 Fuel Temp & Advisory Warning	Deg C	± 512	11		0.25				
2 0 0	1 1 4	Inner Tank 2 Fuel Temp & Advisory Warning	Deg C	± 512	11		0.25				
2 0 1	0 5 A	Fuel Temp. Right Wing Tank	Deg C	512	11		0.25	100	200		
	1 1 4	Inner Tank 3 Fuel Temp & Advisory Warning	Deg C	± 512	11		0.25				
	1 4 0	Mach Maximum Operation (Mmo)	Mach	4.096	12		0.001	62.5	125		
	1 4 2	Projected Future Latitude	Deg	± 180	20		0.000172	150	400		
2 0 2	0 0 2	Energy Management (clean)	N.M.	512	15		0.016	100	200		
	0 0 9	DME Distance	N.M.	512	16		0.008	83.3	167		6-7/6-27
	0 5 A	Fuel Temperature - Set to Zero	Deg C	512	11		0.25	100	200		
	1 1 4	Inner Tank 4 Fuel Temp & Advisory Warning	Deg C	± 512	11		0.025				
	1 4 0	Mach Rate	M/minute	4.096	12		0.001	62.5	125		
	1 4 2	Projected Future Latitude Fine	Deg	0.000172	11		2^{-}E-32	150	400		
2 0 3	0 0 2	Energy Management Speed Brakes	N.M.	512	15		0.016	100	200		
	0 0 6	Altitude (1013.25 mb)	Feet	131072	17		1.0	31.3	62.5		6-24/6-27
	0 1 8	Altitude	Feet	131072	17		1.0	20	40		
	0 3 5	Own A/C Altitude	Feet	131072	17		1.0	20	500		
	0 3 8	Altitude (1013.25 mb)	Feet	131072	17		1.0	31.3	62.5		
	0 5 A	Fuel Tank #6 Temperature	Deg C	512	11		0.25	100	200		
	1 0 A	Ambient Static Pressure	PSIA	1.5 to 20.0	11		0.016	500	1000		
	1 0 B	Ambient Static Pressure	PSIA	1.5 to 20.0	11		0.016	500	1000		
	1 1 4	Trim Tank Fuel Temp & Advisory Warning	Deg C	± 512	11		0.25				
	1 4 0	Altitude	Feet	131072	17		1	31.25	62.5		
2 0 4	0 0 2	Utility Airspeed	Knots	512	11		0.25	500	1000	50	
	0 0 6	Baro Corrected Altitude #1	Feet	131072	17		1.0	31.3	62.5		
	0 3 8	Baro Corrected Altitude #1	Feet	131072	17		1.0	31.3	62.5		
	0 5 6	Baro Altitude	Knots	512	11		0.25	500	1000	50	
	0 5 A	Fuel Tank #7 Temperature	Deg C	512	11		0.25	100	200		
	0 6 0	Baro Altitude	Knots	512	11		0.25	500	1000	50	
	1 1 4	Right Outer Tank Fuel Temp & Advisory Warning	Deg C	± 512	11		0.25				
	1 4 0	Baro Corrected Altitude	Feet	131072	17		1	31.25	62.5		
2 0 5	0 0 6	Mach	Mach	4.096	16		0.0000625	62.5	125		6-27
	0 1 A	Mach	Mach	4.096	16		0.0000625	62.5	125		6-27
	0 3 8	Mach	Mach	4.096	16		0.0000625	62.5	125		6-27
	0 5 A	Fuel Tank #8 Temperature	Deg C	512	11		0.25	100	200		
	1 0 A	Mach Number	Mach	1	11		0.002	100	500		
	1 0 B	Mach Number	Mach	1	11		0.002	100	500		
	1 4 0	Mach	Mach	4.096	16		0.00000625	62.5	125		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
2 0 6	0 0 6	Computed Airspeed	Knots	1024	14		0.0625	62.5	125		6-27
	0 1 8	Altitude (Variable Resolution)	Feet	Variable	15		Variable	31.3	62.5		6-20
	0 3 8	Computed Airspeed	Knots	1024	14		0.0625	62.5	125		
	0 C C	Taxi Speed	Knots	512	11		0.25	50	100		
	1 4 0	Computed Airspeed (CAS)	Knots	1024	14		0.0625	62.5	125		
2 0 7	0 0 6	Maximum Allowable Airspeed	Knots	1024	12		0.25	62.5	125		
	0 0 A	Maximum Allowable Airspeed	Knots	512	11		0.25	100	200		
	0 3 8	Maximum Allowable Airspeed	Knots	1024	12		0.25	62.5	125		
	1 4 0	Airspeed Maximum Operating (VMO)	Knots	1024	12		0.25	62.56	125		
2 1 0	0 0 6	True Airspeed	Knots	2048	15		0.0625	62.5	125		6-27
	0 3 8	True Airspeed	Knots	2048	15		0.0625	62.5	125		
	1 4 0	True Airspeed	Knots	2048	15		0.0625	62.5	125		
2 1 1	0 0 2	Total Air Temperature	Deg C	512	11		0.25	250	500		6-27
	0 0 3	Total Air Temperature	Deg C	512	11		0.25	250	500		
	0 0 6	Total Air Temperature	Deg C	512	11		0.25	250	500		
	0 1 A	Total Air Temperature	Deg C	512	11		0.25	250	500		
	0 3 8	Total Air Temperature	Deg C	512	11		0.25	250	500		
	0 A D	Total Air Temperature Indicated	Deg C	512	12		0.125	250	500		
	1 0 A	Total Fan Inlet Temperature	Deg C	-80 to 90	10		0.125	500	1000		
	1 0 B	Total Fan Inlet Temperature	Deg C	-80 to 90	10		0.125	500	1000		
	1 4 0	Total Air Temperature (TAT)	Deg C	512	12		0.125	250	500		
	1 4 2	Projected Future Longitude	Deg	± 180	20		0.000172	250	500		
2 1 2	0 0 4	Altitude Rate	Ft/Min	32768	11		16	31.3	62.5		6-27
	0 0 5	Altitude Rate	Ft/Min	32768	11		16	31.3	62.5		
	0 0 6	Altitude Rate	Ft/Min	32768	11		16	31.3	62.5		
	0 3 8	Altitude Rate	Ft/Min	32768	11		16	31.3	62.5		
	0 3 B	Altitude Rate	Ft/Min	32768	11		16	150	250		
	1 4 0	Altitude Rate	Ft/Min	32768	11		16	31.25	62.5		
	1 4 2	Projected Future Longitude Fine	Deg	0.000172	11		2E-32 Cir	150	400		
2 1 3	0 0 2	Static Air Temperature	Deg C	512	11		0.25	250	500		6-27
	0 0 6	Static Air Temperature	Deg C	512	11		0.25	250	500		
	0 3 8	Static Air Temperature	Deg C	512	11		0.25	250	500		
	0 8 D	Fuel Used	Lbs.	262144	18		1	75	125		
	1 4 0	Static Air Temperature (SAT)	Deg C	512	11		0.25	250	500		
	1 4 2	Vertical Time Interval	Minute	265 min	10		0.25 min	500	2000		
2 1 5	0 0 6	Impacted Pressure	mb	512	14		0.03125	62.5	125		
	0 1 A	Impact Pressure	mb	512	14		0.03125	62.5	125		
	0 2 9	N1 Actual (EEC)	% RPM	256	14		0.015	50	100		
	0 2 9	EPR Actual (EEC)		4	12		0.001	50	100		
	0 3 8	Impacted Pressure, Uncorrected, mb	mb	512	14		0.03125	62.5	125		
	0 A D	Impacted Pressure, Uncorrected, mb	mb	512	16		0.008	20	40		
	1 4 0	Impact Pressure Subsonic	mb	512	14		0.03125	62.5	125		
2 1 7	0 0 2	Geometric Vertical Rate	Ft/Min	20000	11		16				
	0 0 6	Static Pressure, Corrected (In.Hg.)	in. Hg	64	16		0.001	62.5	125		
	0 2 9	N1 Limit (EEC)	% RPM	256	14		0.015	100	200		
	0 2 9	EPR Limit (EEC)		4	12		0.001	100	200		
	0 3 8	Static Pressure, Average, Corrected (In. Hg.)	in. Hg	64	16		0.001	62.5	125		
	1 4 0	Static Pressure Corrected (In. Hg.)	in. Hg	64	16		0.001	62.5	125		
2 2 0	0 0 6	Baro Corrected Altitude #2	Feet	131072	17		1.0	31.3	62.5		
	0 3 8	Baro Corrected Altitude #2	Feet	131072	17		1.0	31.3	62.5		
	1 4 0	Baro Corrected Altitude #2	Feet	131072	17		1	31.25	62.5		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
2 2 1	0 0 6	Indicated Angle of Attack (Avg)	Deg/180	±180	12		0.05	31.3	62.5		
	0 3 8	Indicated Angle of Attack (Average)	Deg/180	±180	12		0.05	31.3	62.5		
	0 A D	Indicated Angle of Attack	Deg/180	±180	14		0.01	31.3	200		
	1 2 C	Indicated Angle of Attack (Avg.)	Deg/180	±180	12		0.05	31.3	62.5		
	1 4 0	Angle of Attack Indicated Average	Deg	±180	12		0.05	31.25	62.5		
2 2 2	0 0 6	Indicated Angle of Attack (#1 Left)	Deg/180	±180	12		0.05	31.3	62.5		
	0 1 1	VOR Omnibearing	Deg/180	±180	12		0.05	50	100		
	1 1 2	TACAN Bearing	Deg/180	±180	12		0.05	180	220		
	1 1 5	Bearing	Deg/180	±180	11		0.1	50	50		
	1 2 C	Indicated Angle of Attack (#1 Left)	Deg/180	±180	12		0.05	31.3	62.5		
	1 4 0	Angle of Attack, Indicated #1 Left	Deg	±180	12		0.05	31.5	62.5		
2 2 3	0 0 6	Indicated Angle of Attack (#1 Right)	Deg/180	±180	12		0.05	31.3	62.5		
	1 2 C	Indicated Angle of Attack (#1 Right)	Deg/180	±180	12		0.05	31.3	62.5		
	1 4 0	Angle of Attack, Indicated #1 Right	Deg	±180	12		0.05	31.5	62.5		
2 2 4	0 0 6	Indicated Angle of Attack (#2 Left)	Deg/180	±180	12		0.05	31.3	62.5		
	1 2 C	Indicated Angle of Attack (#2 Left)	Deg/180	±180	12		0.05	31.3	62.5		
	1 4 0	Angle of Attack, Indicated #2 Left	Deg	±180	12		0.05	31.5	62.5		
2 2 5	0 0 2	Minimum Maneuvering Airspeed	Knots	512	11		0.25	500	1000	50	
	0 0 6	Indicated Angle of Attack (#2 Right)	Deg/180	±180	12		0.05	31.3	62.5		
	0 2 B	Compensated Altitude Rate	Ft/Min	32768	11	Increas -ing alt	16.0	31.3	62.5		
	0 5 6	Minimum Maneuvering Air Speed	Knots	512	11		0.25	500	1000		
	0 6 0	Minimum Maneuvering Air Speed	Knots	512	11		0.25	500	1000		
	1 2 C	Indicated Angle of Attack (#2 Right)	Deg/180	±180	12		0.05	31.3	62.5		
	1 4 0	Angle of Attack, Indicated #2 Right	Deg	±180	12		0.05	31.5	62.5		
2 2 7	0 3 D	AVM Command									6-28
	0 7 E	BITE Command Word									See ARINC 604
2 3 1	0 A D	Total Air Temperature	Deg C	512	12		0.125	20	200		
2 3 3	0 0 2	ACMS Information									6-31
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
2 3 4	0 0 2	ACMS Information									6-31
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
2 3 5	0 0 2	ACMS Information									6-31
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
2 3 6	0 0 2	ACMS Information									6-31
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
2 3 7	0 0 2	ACMS Information									
	0 0 B	Horizontal Uncertainty Level	N.M.	16	17		0.000122		1200		See ARINC 743A
	0 5 6	ACMS Information									
	0 6 0	ACMS Information									
2 4 1	0 0 2	Min. Airspeed for Flap Extension	Knots	512	11		0.25	500	1000	50	
	0 0 6	Corrected Angle of Attack	Deg/180	±180	12		0.05	31.3	62.5		
	0 3 8	Corrected Angle of Attack	Deg/180	±180	12		0.05	31.3	62.5		
	0 4 D	FQIS System Data						500	1024		6-35
	0 5 6	Min. Airspeed for Flap Extension	Knots	512	11		0.25	500	1000		
	0 6 0	Min. Airspeed for Flap Extension	Knots	512	11		0.25	500	1000		
	1 4 0	Angle of Attack, Corrected	Deg	±180	12		0.05	31.5	62.5		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
2 4 2	0 0 6	Total Pressure	mb	2048	16		0.03125	62.5	125		
	0 1 A	Total Pressure	mb	2048	16		0.03125	62.5	125		
	0 3 8	Total Pressure	mb	2048	16		0.03125	62.5	125		
	0 3 B	Speed Deviation	Dots	4	11		0.002	150	250		
	0 A D	Total Pressure, Uncorrected, mb	mb	2048	18		0.008	20	200		
	1 4 0	Total Pressure	mb	2048	16		0.03125	62.5	125		
2 4 3	X X X	Simulator to Avcs Control Word						33	100		See ARINC Rpt 610
2 4 4	0 1 C	Fuel Flow (Engine Direct)	Lbs/hr	32768	8		128.0	100	200		
	0 3 3	Fuel Flow (Wf)	pph	32768	16		0.5	150	250		
	0 3 B	Mach Error	Mach	0.064	11		0.00003	150	250		
	0 8 D	Fuel Flow Rate	PPH	32768	16		0.5	75	125		
	1 0 A	Fuel Mass Flow	MSEC	256	15		0.008	31.3	100		
	1 0 B	Fuel Mass Flow	MSEC	256	15		0.008	31.3	100		
	1 4 0	Angle of Attack, Normalized	Ratio	2	11		0.001	62.5	125		
2 4 5	0 0 2	Minimum Airspeed	Knots	256	12		0.0625	62.5	125		
	0 0 3	Minimum Airspeed	Knots	256	12		0.0625	62.5	125		
	0 0 A	Minimum Airspeed	Knots	512	13		0.0625	62.5	125		
	0 2 9	N3 (Engine)	% RPM	256	14		0.015	50	100		
	0 3 8	Avg. Static Pres. mb uncorrected	mb	2048	16		0.03125	62.5	125		
	0 3 B	EPR Error		4	12		0.001	150	250		
	0 A D	Average Static Pressure mb Uncorrected	mb	2048	16		0.03125	62.5	125		
	0 5 6	Minimum Airspeed	Knots	256	12		0.0625	62.5	125		
	0 6 0	Minimum Airspeed	Knots	256	12		0.0625	62.5	125		
	1 4 0	Static Pressure, Uncorrected	mb	2048	16		0.03125	62.5	125		
2 4 6	0 0 2	Control Maximum Speed (VCMAX)	Knots	512	11		0.25	50	100	50	
	0 0 6	Average Static Pressure	mb	2048	16		0.03	62.5	125		
	0 1 C	N1 (Engine Direct)	RPM	4096	12		1.0	100	200		
	0 2 9	N1 (Engine Direct)	% RPM	256	14		0.015	50	100		
	0 3 8	Avg Static Pres mb Corrected	mb	2048	16		0.03125	62.5	125		
	0 3 B	Angle of Attack Error	Deg/180	±180	14		0.01	150	250		
2 4 7	0 0 2	Control Min. Speed (VCMIN)	Knots	512	11		0.25	50	100	50	
	0 0 B	Horizontal Figure of Merit	N.M.	16	18		6.1 E-5	200	1200		
	0 1 F	Total Fuel	Lbs.	655360	14		40	500	1000		
	0 2 C	Total Fuel	Lbs.	655360	14		40	500	1000		
	0 3 B	Speed Error	Knots	256	12		0.06	150	250		
	0 4 D	Total Fuel	Lbs.	655360	14		40	500	1000		
	0 5 6	Control Minimum Speed (Vcmin)	Knots	512	11		0.25	50	100		
	0 5 A	Total Fuel	Lbs.	655360	14		40	100	200		
	0 6 0	Control Minimum Speed (Vcmin)	Knots	512	11		0.25	50	100		
	0 E B	Fuel to Remain	Lbs.	1638400	14		100	100	125		
	1 1 4	Fuel on Board	Lbs.	655320	13		40				
	1 4 0	Airspeed Minimum Vmc	Knots	512	11		0.25	62.5	125		
2 5 0	0 0 2	Continuous N1 Limit	% RPM	256	14		0.015	50	200	200	
	0 2 B	Maximum Continuous EPR Limit		4	12		0.001	100	200		
	0 2 C	Preselected Fuel Quantity	Lbs.	655360	14		40	100	400		
	0 5 A	Preselected Fuel Quantity	Lbs.	655360	14		40	100	200		
	0 3 8	Indicated Side Slip Angle	Deg/180	±180	12		0.05	31.3	62.5		
	0 A D	Indicated Side Slip Angle or AOS	Deg/180	±180	14		0.01	31.3	200		
	1 1 4	Preselected Fuel Quantity	Lbs.	655320	13		40				
2 5 1	0 0 1	Distance to Go	N.M.	4096	15		0.125	100	200		
	0 0 2	Distance to Go	N.M.	4096	15		0.125	100	200		
	0 0 6	Baro Corrected Altitude #3	Feet	131072	17		1.0	31.3	62.5		
	0 1 A	Flight Leg Counter						75	175		6-19
	0 3 8	Baro Corrected Altitude #3	Feet	131072	17		1.0	31.3	62.5		
2 5 2	0 0 1	Time to Go	Min.	512	9		1.0	100	200		
	0 0 2	Time to Go	Min.	512	9		1.0	100	200		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 0 6	Baro Corrected Altitude #4	Feet	131072	17		1.0	31.3	62.5		
	0 1 A	EPR Idle		4	12		0.001	100	200		
	0 2 F	EPR Idle Reference		4	12		0.001	100	200		
	0 3 8	Baro Corrected Altitude #4	Feet	131072	17		1.0	31.3	62.5		
	0 3 F	EPR Idle Reference		4	12		0.001	100	200		
	0 E B	Time Until Jettison Complete	Minutes	64	6		1	500	1000		
2 5 3	0 0 2	Go-Around N1 Limit	% RPM	256	14		0.015	50	200	200	
	0 1 E	Go-Around EPR Limit		4	12		0.001	100	200		
	0 3 8	Corrected Side Slip Angle	Deg/180	±180	12		0.05	31.3	62.5		
2 5 4	0 0 2	Cruise N1 Limit	% RPM	256	14		0.015	50	200	200	
	0 1 E	Cruise EPR Limit		4	12		0.001	100	200		
	0 4 D	Actual Fuel Quan (test)	Lbs	262144	15		8	500	1000		
	1 3 A	N1 Cruise	% N1 Nom	256	14		0.015	100	200		
	1 4 0	Altitude Rate	Ft/Min	131072	13		16	31.25	62.5		
2 5 5	0 0 2	Climb N1 Limit	% RPM	256	14		0.015	50	200	200	
	0 1 E	Climb EPR Limit		4	12		0.001	100	200		
	0 2 F	Maximum Climb EPR Rating	N/A	4	12		0.001	100	200		
	0 3 F	Maximum Climb EPR Rating	N/A	4	12		0.001	100	200		
	0 4 D	Fuel Quantity (gal)	Gallons	32768	15		1.0	500	1000		
	0 8 E	Spoiler Position	Deg/180	+180	11		0.1	50	100		
	1 3 A	N1 Climb	% N1 Nom	256	14		0.015	100	200		
	1 4 0	Impact Pressure	mb	4096	17		0.03125	62.5	125		
2 5 6	0 0 2	Time For Climb	Min.	512	9		1	100	200		
	0 0 A	V Stick Shaker	Knots	512	11		0.25	100	200		
	0 2 C	Fuel Quantity (Tanks) #1	Lbs.	131072	15		4	500	1000		
	0 5 6	Time for Climb	Min.	512	9		1	100	200		
	0 5 A	Fuel Quantity-Left Outer Cell	Lbs.	131072	15		4	100	200		Zero for A-321
	0 6 0	Time for Climb	Min.	512	9		1	100	200		
	1 1 4	Left Outer Tank Fuel Quantity	Lbs.	131072	15		4				
	1 4 0	Equivalent Airspeed	Knots	1024	14		0.0625	62.5	125		
2 5 7	0 0 2	Time For Descent	Min.	512	9		1	100	200		
	0 2 C	Fuel Quantity (Tanks) #2	Lbs.	131072	15		4	500	1000		
	0 5 6	Time for Descent	Min.	512	9		1	100	200		
	0 5 A	Fuel Quantity Left W/T Tank	Lbs.	131072	15		4	100	200		
	0 6 0	Time for Descent	Min.	512	9		1	100	200		
	1 1 4	Fuel Quantity (Tanks) #2	Lbs.	131072	15		4	500	1000		
	1 4 0	Total Pressure (High Range)	mb	4096	17		0.03125	62.5	125		
2 6 0	0 2 C	Fuel Quantity (Tanks) #3	Lbs.	131072	15		4	500	1000		
	0 5 A	Fuel Quantity Center Tank	Lbs.	131072	15		4	100	200		
	0 3 3	T5	Deg C	1024	12		0.25	150	250		See Note [5]
	1 0 A	LP Turbine Discharge Temp	Deg C	-55 to 850	11		0.50	100	500		
	1 0 B	LP Turbine Discharge Temperature	Deg C	-55 to 850	11		0.50	100	500		
	1 1 4	Collector Cell 1 and 2 Fuel Quantity	Lbs.	131072	15		4				
2 6 1	0 2 C	Fuel Quantity (Tanks) #4	Lbs.	131072	15		4	500	1000		
	0 3 3	P49	PSIA	128	14		0.008	150	250		
	0 5 A	Fuel Qty Right I/C or W/T Tank	Lbs.	131072	15		4	100	200		
	1 0 A	LP Turbine Inlet Pressure	PSIA	2-120	11		0.125	100	500		
	1 0 B	LP Turbine Inlet Pressure	PSIA	2-120	11		0.125	100	500		
	1 1 4	Fuel on Board at Engine Start	Lbs.	131072	15		4				
	1 4 4	Range Ring Radius	NM	512	15		1/64	800	1200		6-52
2 6 2	0 0 2	Documentary Data						500	1000		6-14
	0 0 A	Predicitive Airspeed Variation	Knots	256	10		0.25	100	200		
	0 1 C	LP Compressor Exist Pres. (PT3)	PSIA	64	13		0.008	100	200		
	0 2 C	Fuel Quantity (Tanks) #5	Lbs.	131072	15		4	500	1000		
	0 3 3	LP Compressor Exist Pressure	PSIA	64	14		0.004	150	250		
	0 4 D	T/U Cap-L Tank 1-4	PF	655.35	16		0.01	TBD	TBD		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 5 A	Fuel Quantity-Right Outer Cell	Lbs.	131072	15		4	100	200		
	1 0 A	HP Compressor Inlet Total Pres.	PSIA	2-50	11		0.032	100	500		
	1 0 B	HP Compressor Inlet Total Pres.	PSIA	2-50	11		0.032	100	500		
	1 1 4	Center Tank Fuel Quantity	Lbs.	131072	15		4				
	1 4 4	Display Range	NM	512	14		1/32	800	1200		6-51
2 6 3	0 0 2	Min. Airspeed for Flap Retraction	Knots	512	11		0.25	500	1000	50	
	0 0 A	Min. Airspeed for Flap Retraction	Knots	512	11		0.25	100	200		
	0 1 C	LP Compressor Exit Temperature		256	12		0.06	100	200		
	0 2 C	Fuel Quantity (Tanks) #6	Lbs	131072	15		4	500	1000		
	0 3 3	LP Compressor Exit Temperature	Deg C	256	12		0.063	150	250		
	0 4 D	T/U Cap-L Tank 5-8	PF	655.35	16		0.01	TBD	TBD		
	0 5 6	Min. Airspeed for Flap Retraction	Knots	512	11		0.25	500	1000		
	0 6 0	Min. Airspeed for Flap Retraction	Knots	512	11		0.25	500	1000		
	1 0 A	Selected Compressor Inlet Temperature (Total)	Deg C	-55 to 160	11		0.125	100	500		
	1 0 B	Selected Compressor Inlet Temp (Total)	Deg C	-55 to 160	11		0.125	100	500		
	1 1 4	Collector Cell 3 and 4 Fuel Quantity	Lbs.	131072	15		4				
2 6 4	0 0 2	Time To Touchdown	Min.	2048	11		1	100	200	145	
	0 0 A	Min. Airspeed for Slats Retraction	Knots	512	11		0.25	100	200		
	0 1 C	HP Compressor Exit Pressure		512	14		0.03	100	200		
	0 2 C	Fuel Quantity (Tanks) #7	Lbs.	131072	15		4	500	1000		
	0 2 F	Burner Pressure	PSIA	512	14		0.03	100	200		
	0 4 D	T/U Cap-L Tank 9-12	PF	655.35	16		0.01	TBD	TBD		
	0 3 3	HP Compressor Exit Pressure	PSIA	512	14		0.03	150	250		
	0 3 F	Burner Pressure	PSIA	512	14		0.03	100	200		
	0 5 6	Time to Touchdown	Min.	2048	11		1	100	200		
	0 6 0	Time to Touchdown	Min.	2048	11		1	100	200		
	1 0 A	Selected Compressor Dischg Pres.	PSIA	5-600	11		1.00	62.5	250		
	1 0 B	Selected Compressor Dischg Pres.	PSIA	5-600	11		1.00	62.5	250		
	1 3 A	Burner Pressure	PSIA	512	14		0.031	100	200		
2 6 5	0 0 2	Min. Buffet Airspeed	Knots	512	11		0.25	50	100	50	
	0 0 4	Integrated Vertical Acceleration	Ft/Sec	±256	20	UP	0.000244		20		
	0 0 A	Maneuvering Airspeed	Knots	512	11		0.25	100	200		
	0 1 C	HP Compressor Exit Temp (TT4.5)		1024	12		0.25	100	200		
	0 2 C	Fuel Quantity (Tanks) #8	Lbs.	131072	15		4	500	1000		
	0 3 3	HP Compressor Exit Temperature	Deg C	1024	12		0.25	150	250		
	0 3 8	Integrated Vertical Acceleration	Ft/Sec	±256	20	UP	0.000244		20		
	0 4 D	T/U Cap-L Tank 13-14	PF	655.35	16		0.01	TBD	TBD		
	0 5 6	Min. Buffet Airspeed	Knots	512	11		0.25	50	100		
	0 6 0	Min. Buffet Airspeed	Knots	512	11		0.25	50	100		
	1 0 A	Selected Compressor Dischg Temp	Deg C	-55 to 650	11		0.50	100	500		
	1 0 B	Selected Compressor Dischg Temp	Deg C	-55 to 650	11		0.50	100	500		
	1 1 4	Inner Tank 3 Fuel Quantity	Lbs.	131072	15		4				
2 6 6	0 4 D	T/U Cap-C Tank 1-4	PF	655.35	16		0.01	TBD	TBD		
	1 1 4	Inner Tank 2 Fuel Quantity	Lbs.	131072	15		4				
2 6 7	0 0 2	Maximum Maneuver Airspeed	Knots	512	11		0.25	500	1000	50	
	0 0 A	Predictive Max. Maneuver Speed	Knots	512	11		0.25	100	200		
	0 2 B	Throttle Position Command	Deg/180	±180	12		0.05	50	100		
	0 4 D	T/U Cap-C Tank 5-8	PF	655.35	16		0.01	TBD	TBD		
	0 3 3	Spare T/C	Deg C	256	12		0.063	150	250		
	0 5 6	Max. Maneuver Airspeed	Knots	512	11		0.25	500	1000		
	0 6 0	Max. Maneuver Airspeed	Knots	512	11		0.25	500	1000		
	1 0 A	HP Compressor Inlet Temp. (total)	Deg C	-55 to 160	11		0.125	500	1000		
	1 0 B	HP Compressor Inlet Temperature	Deg C	-55 to 160	11		0.125	500	1000		
	1 1 4	Inner Tank 4 Fuel Quantity	Lbs.	131072	15		4				
2 7 0	0 4 D	T/U Cap-C Tank 9	PF	655.35	16		0.01	TBD	TBD		
	1 1 5	Stored TACAN Control Word						25	50		See ARINC 429P2

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
271	04D	T/U Cap-A Tank 1-4	PF	655.35	16		0.01	TBD	TBD		
272	04D	T/U Cap Tank 5-8	PF	655.35	16		0.01	TBD	TBD		
273	04D	T/U Cap-A Tank 9-11	PF	655.35	16		0.01	TBD	TBD		
274	04D	T/U Cap-R Tank 1-4	PF	655.35	16		0.01	TBD	TBD		
275	04D	T/U Cap-R Tank 5-8	PF	655.35	16		0.01	TBD	TBD		
276	001	FCC to Simulator Control Word						50	150		Used only in simulator
	002	FMC to Simulator Control Word						33	100		Used only in simulator
	003	TCC to Simulator Control Word						50	150		Used only in simulator
	04D	T/U Cap-R Tank 9-12	PF	655.35	16		0.01	TBD	TBD		
277	04D	T/U Cap-R Tank 13-14	PF	655.35	16		0.01	TBD	TBD		
300	10A	ECU Internal Temperature	Deg C	-55 to 125	11		0.125	500	1000		
	10B	ECU Internal Temperature	Deg C	-55 to 125	11		0.125	500	1000		
301	10A	Demanded Fuel Metering Valve Pos	%	100	11		0.063	62.5	250		
	10B	Demanded Fuel Metering Valve Pos	%	100	11		0.063	62.5	250		
302	10A	Demanded Variable Stator Vane Pos	%	100	11		0.063	100	500		
	10B	Demanded Variable Stator Vane Pos	%	100	11		0.063	100	500		
303	10A	Demanded Variable Bleed Valve Pos	%	100	11		0.063	100	500		
	10B	Demanded Variable Bleed Valve Pos	%	100	11		0.063	100	500		
304	10A	Demanded HPT Clearance Valve Pos	%	100	11		0.063	250	1000		
	10B	Demanded HPT Clearance Valve Pos	%	100	11		0.063	250	1000		
305	10A	Demanded LPT Clearance Valve Pos	%	100	11		0.063	250	1000		
	10B	Demanded LPT Clearance Valve Pos	%	100	11		0.063	250	1000		
310	002	Present Position - Latitude	Deg/180	0-180N/ 0-180S	20		0.000172	100	200		6-27
	004	Present Position - Latitude	Deg/180	0-180N/ 0-180S	20		0.000172	100	200		
	029	Aileron Position	Deg/180	±180	11		0.088	50	100		
	038	Present Position - Latitude	Deg/180	0-180N/ 0-180S	20		0.000172	100	200		
	04D	Comp Cap-Tank	PF	327.67	15		0.01	TBD	TBD		
	056	Present Position Latitude	Deg/180	0-180N/ 0-180S	20		0.000172	100	200		
	060	Present Position Latitude	Deg/180	0-180N/ 0-180S	20		0.000172	100	200		
	114	Right Outer Tank Fuel Quantity	Lbs.	131068	15		4				
311	002	Present Position - Longitude	Deg/180	0-180E/ 0-180W	20		0.000172	100	200		
	004	Present Position - Longitude	Deg/180	0-180E/ 0-180W	20		0.000172	100	200		
	029	Aileron Trim	Deg/180	±180	11		0.088	50	100		
	038	Present Position - Longitude	Deg/180	0-180E/ 0-180W	20		0.000172	100	200		
	03B	Control Wheel Roll Force	Lbs.	64	10		0.0625	150	250		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 5 6	Present Position Longitude	Deg/180	0-180E/ 0-180W	20		0.000172	100	200		
	0 6 0	Present Position Longitude	Deg/180	0-180E/ 0-180W	20		0.000172	100	200		
	1 1 4	Trim Tank Fuel Quantity	Lbs.	131072	15		4				
3 1 2	0 0 2	Ground Speed	Knots	4096	15		0.125	25	50		
	0 0 4	Ground Speed	Knots	4096	15		0.125	25	50		
	0 0 5	Ground Speed	Knots	4096	15		0.125	25	50		
	0 2 9	Rudder Position	Deg/180	±180	11		0.088	50	100		
	0 3 8	Ground Speed	Knots	4096	15		0.125	25	50		
	0 5 6	Ground Speed	Knots	4096	15		0.125	25	50		
	0 5 A	Fuel Quantity ACT 1	Lbs.	131072	15		4	100	200		
	0 6 0	Ground Speed	Knots	4096	15		0.125	25	50		
	1 1 4	Additional Center Tank (Act 1) Fuel Quantity	Lbs.	131072	15		4				
3 1 3	0 0 2	Track Angle - True	Deg/180	±180	12		0.05	25	50		
	0 0 4	Track Angle - True	Deg/180	±180	15		0.0055	25	50		
	0 2 5	Track Angle - True	Deg/180	±180	10		0.2	125	250		
	0 2 9	Rudder Trim	Deg/180	±180	11		0.088	50	100		
	0 3 8	Track Angle - True	Deg/180	±180	15		0.0055	25	50		
	0 5 6	Track Angle - True	Deg/180	±180	12		0.05	25	50		
	0 5 A	Fuel Quantity ACT 2	Lbs.	131072	15		4	100	200		
	0 6 0	Track Angle - True	Deg/180	±180	12		0.05	25	50		
	1 1 4	Additional Center Tank (Act 2) Fuel Quantity	Lbs.	131072	15		4				
3 1 4	0 0 2	Stabilizer Pos Indication (B747-400)	Deg/180	±180	12	TE Down	0.05	25	50	50	
	0 0 4	True Heading	Deg/180	±180	15		0.0055	25	50		
	0 2 5	True Heading	Deg/180	±180	10		0.2	125	250		
	0 2 9	Elevator Position	Deg/180	±180	11		0.088	50	100		
	0 3 8	True Heading	Deg/180	±180	15		0.0055	25	50		
	0 3 B	Control Wheel Pitch Force	Lbs.	64	10		0.0625	150	250		
	1 1 4	Rear Center tank (RCT) Fuel Quantity	Lbs.	131072	15		4				
3 1 5	0 0 1	Stabilizer Position	Deg/180	±180	12	TE Down	0.05	25	50		
	0 0 2	Wind Speed	Knots	256	8		1.0	50	100		
	0 0 4	Wind Speed	Knots	256	8		1.0	50	100		
	0 0 5	Wind Speed	Knots	256	8		1.0	50	100		
	0 2 9	Stabilizer Position	Deg/180	±180	11	TE Down	0.088	50	100		
	0 3 8	Wind Speed	Knots	256	8		1.0	50	100		
	0 5 6	Wind Speed	Knots	256	8		1.0	50	100		
	0 6 0	Wind Speed	Knots	256	8		1.0	50	100		
	0 A 1	Stabilizer Position	Deg/180	±180	12	TE Down	0.05	25	50		
3 1 6	0 0 2	Wind Direction (True)	Deg/180	+180	12	CW from north	0.05	25	50	50	
	0 0 4	Wind Angle	Deg/180	±180	8		0.7	50	100		
	0 2 9	Oil Temperature (Engine)	Deg C	2048	12		0.5	100	200		
	0 3 8	Wind Angle	Deg/180	±180	8		0.7	50	100		
	0 5 6	Wind Direction (True)	Deg/180	+180	12	CW from north	0.05	25	50	50	

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 6 0	Wind Direction (True)	Deg/180	+180	12	CW from north	0.05	25	50	50	
	1 0 A	Engine Oil Temperature	Deg C	-55 to 170	11		1.00	250	1000		
	1 0 B	Engine Oil Temperature	Deg C	-55 to 170	11		1.00	250	1000		
	0 D 0	Engine Oil Temperature	Deg C	2048	12		0.5				SDI 1=L SDI 2 =R
3 1 7	0 0 2	Track Angle - Magnetic	Deg/180	±180	12		0.05	25	50		
	0 0 4	Track Angle - Magnetic	Deg/180	±180	15		0.0055	25	50		
	0 0 5	Track Angle - Magnetic	Deg/180	±180	15		0.0055	25	50		
	0 2 5	Track Angle - Magnetic	Deg/180	±180	10		0.2	125	250		
	0 2 9	Oil Pressure (Engine)	PSI	4096	12		1	50	100		
	0 3 8	Track Angle - Magnetic	Deg/180	±180	15		0.0055	25	50		
	0 5 6	Track Angle Magnetic	Deg/180	±180	12		0.05	25	50		
	0 6 0	Track Angle Magnetic	Deg/180	±180	12		0.05	25	50		
	0 D 0	Engine Oil Pressure	PSI	4096	14		0.25				SDI 1 = L/SDI 2 = R
3 2 0	0 0 4	Magnetic Heading	Deg/180	±180	15		0.0055	25	50		
	0 0 5	Magnetic Heading	Deg/180	±180	15		0.0055	25	50		
	0 2 5	Magnetic Heading	Deg/180	±180	10		0.2	125	250		
	0 3 5	Own A/C Magnetic Heading	Deg/180	±180	15		0.0055	25	500		See ARINC 735
	0 3 8	Magnetic Heading	Deg/180	±180	15		0.0055	25	50		
	0 4 D	Density-Tank	Lb/Gal	8.191	13		0.001	TBD	TBD		
3 2 1	0 0 2	Drift Angle	Deg/180	±180	12		0.05	25	50		
	0 0 4	Drift Angle	Deg/180	±180	11		0.09	25	50		
	0 0 5	Drift Angle	Deg/180	±180	11		0.09	25	50		
	0 3 8	Drift Angle	Deg/180	±180	12		0.05	25	50		
	0 5 6	Drift Angle	Deg/180	±180	12		0.05	25	50		
	0 6 0	Drift Angle	Deg/180	±180	12		0.05	25	50		
	1 0 A	Exhaust Gas Temperature (Total)	Deg C	-55 to 1100	11		1.00	500	1000		
	1 0 B	Exhaust Gas Temperature (Total)	Deg C	-55 to 1100	11		1.00	500	1000		
3 2 2	0 0 2	Flight Path Angle	Deg/180	+180	12		0.05	25	50		
	0 0 4	Flight Path Angle	Deg/180	±180	12		0.05	25	50		
	0 0 5	Flight Path Angle	Deg/180	±180	12		0.05	25	50		
	0 3 8	Flight Path Angle	Deg/180	±180	12		0.05	25	50		
	0 5 6	Flight Path Angle	Deg/180	+180	12		0.05	25	50		
	0 6 0	Flight Path Angle	Deg/180	+180	12		0.05	25	50		
	1 0 A	Total Compressor Discharge Temp	Deg C	-55 to 650	11		0.50	500	1000		
	1 0 B	Total Compressor Discharge Temp	Deg C	-55 to 650	11		0.50	500	1000		
3 2 3	0 0 2	Geometric Altitude	Feet	50000	17		1				
	0 0 4	Flight Path Acceleration	g	4	12		0.001	10	20		6-27
	0 0 5	Flight Path Acceleration	g	4	12		0.001	10	20		
	0 3 8	Flight Path Acceleration	g	4	12		0.001	10	20		
	0 5 6	Geometric Altitude	Feet	50000	17		1				
	0 6 0	Geometric Altitude	Feet	50000	17		1				
	1 0 A	Variable Stator Vane Position	%	-5 to 105	11		0.063	500	1000		
	1 0 B	Variable Stator Vane Position	%	-5 to 105	11		0.063	500	1000		
3 2 4	0 0 4	Pitch Angle	Deg/180	±180	14		0.01	10	20		
	0 0 5	Pitch Angle	Deg/180	±180	14		0.01	10	20		
	0 2 5	Pitch Angle	Deg/180	±180	10		0.2	125	250		
	0 3 8	Pitch Angle	Deg/180	±180	14		0.01	10	20		
	0 4 D	Tank VSO Quantity	Gal.	32768	15		1.0	TBD	TBD		See Att. 6 for SDI encoding
	0 5 A	Effective Pitch Angle	Deg./180	±180	14		0.01				
	1 0 A	Selected Fuel Metering Valve Pos	%	-5 to 105	11		0.063	62.5	250		
	1 0 B	Selected Fuel Metering Valve Pos	%	-5 to 105	11		0.063	62.5	250		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	1 1 4	Effective Pitch Angle	Deg	±180	13		0.02				
3 2 5	0 0 4	Roll Angle	Deg/180	±180	14		0.01	10	20		
	0 0 5	Roll Angle	Deg/180	±180	14		0.01	10	20		
	0 1 A	Engine Control Trim Feedback									
	0 2 5	Roll Angle	Deg/180	±180	10		0.2	125	250		
	0 2 F	Stator Vane Feedback	Inches	4	12		0.001	100	200		
	0 3 8	Roll Angle	Deg/180	±180	14		0.01	10	20		
	0 3 F	Stator Vane Feedback	Inches	4	12		0.001	100	200		
	0 5 A	Effective Roll Angle	Deg/180	±180	14		0.01				
	1 0 A	Selected Variable Stator Vane Pos	%	-5 to 105	11		0.063	62.5	250		
	1 0 B	Selected Variable Stator Vane Pos	%	-5 to 105	11		0.063	62.5	250		
	1 1 4	Effective Roll Angle	Deg	±180	13		0.02				
3 2 6	0 0 4	Body Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 5	Body Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 3 8	Body Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 4 D	Uplift Quantity	Lbs	1638400	14		100	TBD	TBD		
	1 0 A	Compressor Discharge Static Press	PSIA	5-600	11		1.00	500	1000		
	1 0 B	Compressor Discharge Static Press	PSIA	5-600	11		1.00	500	1000		
3 2 7	0 0 4	Body Roll Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 5	Body Roll Rate	Deg/Sec	128	13		0.015	10	20		
	0 3 8	Body Roll Rate	Deg/Sec	128	13		0.015	10	20		
	0 4 D	Uplift Density	Lbs/Gal	8.181	13		0.001	TBD	TBD		
	1 0 A	Fuel Metering Valve Position	%	-5 to 105	11		0.063	500	1000		
	1 0 B	Fuel Metering Valve Position	%	-5 to 105	11		0.063	500	1000		
3 3 0	0 0 4	Body Yaw Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 5	Body Yaw Rate	Deg/Sec	128	13		0.015	10	20		
	0 2 F	HC/TC Cooling Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
	0 3 8	Body Yaw Rate	Deg/Sec	128	13		0.015	10	20		
	0 3 F	HC/TC Cooling Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
	1 0 A	Selected HPT Clearance Valve Position	%	-5 to 105	11		0.063	250	1000		
	1 0 B	Selected HPT Clearance Valve Pos	%	-5 to 105	11		0.063	250	1000		
3 3 1	0 0 4	Body Longitudinal Acceleration	g	4	12		0.001	10	20		
	0 0 5	Body Longitudinal Acceleration	g	4	12		0.001	10	20		
	0 2 F	LTC Cooling Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
	0 3 8	Body Longitudinal Acceleration	g	4	12		0.001	10	20		
	0 3 F	LTC Cooling Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
	1 0 A	Selected LPT Clearance Valve Pos	%	-5 to 105	11		0.063	250	1000		
	1 0 B	Selected LPT Clearance Valve	%	-5 to 105	11		0.063	250	1000		
3 3 2	0 0 4	Body Lateral Acceleration	g	4	12		0.001	10	20		
	0 0 5	Body Lateral Acceleration	g	4	12		0.001	10	20		
	0 2 F	A/O Heat Xchr Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
	0 3 8	Body Lateral Acceleration	g	4	12		0.001	10	20		
	0 3 F	A/O Heat Xchr Valve Pos. Feedback	%	128	12	OPEN	0.03	100	200		
3 3 3	0 0 4	Body Normal Acceleration	g	4	12		0.001	10	20		
	0 0 5	Body Normal Acceleration	g	4	12		0.001	10	20		
	0 2 F	Acceleration Fuel Flow Limit	Lb/Hr	32768	12		8	100	200		
	0 3 8	Body Normal Acceleration	g	4	12		0.001	10	20		
	0 3 F	Acceleration Fuel Flow Limit	Lb/Hr	32768	12		8	100	200		
3 3 4	0 0 4	Platform Heading	Deg/180	±180	11		0.09	20	40		
	0 0 5	Platform Heading	Deg/180	±180	11		0.09	20	40		
	0 2 F	Fuel Flow Command	Lb/Hr	32768	12		8	100	200		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	0 3 8	Platform Heading	Deg/180	±180	11		0.09	20	40		
	0 3 F	Fuel Flow Command	Lb/Hr	32768	12		8	100	200		
3 3 5	0 0 2	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	0 0 4	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	0 0 5	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	0 2 F	2.5 BLD Actuator Position	%	128	12		0.031	100	200		
	0 3 8	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	0 3 F	2.5 BLD Actuator Position	%	128	12		0.031	100	200		
	0 5 6	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	0 6 0	Track Angle Rate	Deg/Sec	32	11		0.015	10	20		
	1 0 A	Selected Variable Bleed Valve Pos	%	-5 to 105	11		0.063	100	500		
	1 0 B	Selected Variable Bleed Valve Pos	%	-5 to 105	11		0.063	100	500		
3 3 6	0 0 2	Max Climb Angle	Deg	32	15	Climb	0.001	100	200		
	0 0 4	Inertial Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 5	Inertial Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 1 A	Engine Torque	%	256	12		0.063	100	200		
	0 2 F	N2 Corrected to Sta 2.5	%	128	12		0.031	100	200		
	0 3 8	Inertial Pitch Rate	Deg/Sec	128	13		0.015	10	20		
	0 3 F	N2 Corrected to Sta 2.5	%	128	12		0.031	100	200		
	1 0 A	Variable Bleed Valve Position	%	-5 to 105	11		0.063	500	1000		
	1 0 B	Variable Bleed Valve Position	%	-5 to 105	11		0.063	500	1000		
3 3 7	0 0 2	EPR - Required For Level Flight	Ratio	±4	12		0.001	100	200		Engine Types: P&W
	0 0 2	N1 - Required For Level Flight	% RPM	±256	15		0.015				Engine Types: GE
	0 0 4	Inertial Roll Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 5	Inertial Roll Rate	Deg/Sec	128	13		0.015	10	20		
	0 1 A	Engine Rating	%	0-256	12		0.063	100	200		
	0 3 8	Inertial Roll Rate	Deg/Sec	128	13		0.015	10	20		
	1 0 A	HPT Clearance Valve Position	%	-5 to 105	11		0.063	500	1000		
	1 0 B	HPT Clearance Valve Position	%	-5 to 105	11		0.063	500	1000		
3 4 0	0 0 3	EPR Actual		4	12		0.001	100	200		
	0 0 4	Inertial Yaw Rate	Deg/Sec	128	13		0.015	10	20		
	0 0 4	Track Angle Grid	Deg	± 180	15		0.0055	20	110		
	0 0 5	Inertial Yaw Rate	Deg/Sec	128	13		0.015	10	20		
	0 1 A	EPR Actual		4	12		0.001	100	200		
	0 2 9	EPR Actual (Engine Direct)		4	12		0.001	50	100		
	0 2 D	EPR Actual		4	12		0.001	100	200		
	0 2 F	EPR Actual		4	12		0.001	25	50		
	0 3 3	EPR Actual		4	12		0.001	100	200		
	0 3 F	EPR Actual		4	12		0.001	25	50		
	1 3 A	N1 Take Off	% N1Nom	256	14		0.015	25	50		
	1 4 0	Pressure Ratio (Pt/Ps)	Ratio	16	14		0.001	62.5	125		
3 4 1	0 0 2	Target N1	% RPM	256	14		0.015	100	200		
	0 0 3	N1 Command	% RPM	256	14		0.015	100	200		
	0 0 3	EPR Command		4	12		0.001	100	200		
	0 0 4	Grid Heading	Deg	± 180	15		0.0055	20	110		
	0 1 A	N1 Command	% RPM	256	14		0.015	100	200		
	0 1 A	EPR Command		4	12		0.001	100	200		
	0 2 9	N1 Command (Engine)	% RPM	256	14		0.015	50	100		
	0 2 9	EPR Command (Engine)		4	12		0.001	50	100		
	0 2 F	N1 Command	% RPM	256	14		0.015	25	50		
	0 2 F	EPR Command		4	12		0.001	25	50		
	0 3 8	Grid Heading	Deg	± 180	15		0.0055	20	110		
	0 3 F	EPR Command		4	12		0.001	100	200		
	0 4 D	I/O S/W REV 1&2		(1)	16		N/A	TBD	TBD		
	1 0 A	Command Fan Speed	%	117.5	13		0.032	31.3	100		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	1 0 B	Command Fan Speed	%	117.5	13		0.032	31.3	100		
	1 3 A	N1 Reference	% N1Nom	256	14		0.015	25	50		
	1 4 0	Pressure Ratio (Ps/Pso)	Ratio	4	12		0.001	62.5	125		
3 4 2	0 0 2	N1 Bug Drive	% RPM	256	14		0.015	100	200		
	0 0 3	N1 Limit	% RPM	256	14		0.015	100	200		
	0 0 3	EPR Limit		4	12		0.001	100	200		
	0 1 A	N1 Maximum	% RPM	256	14		0.015	100	200		
	0 1 A	EPR Maximum		4	12		0.001	100	200		
	0 2 9	N1 Limit (TCC)	% RPM	256	14		0.015	100	200		
	0 2 9	EPR Limit (TOC)		4	12		0.001	100	200		
	0 2 F	Maximum Available EPR		4	12		0.001	100	200		
	0 3 B	EPR Limit		4	12		0.001	150	250		
	0 3 B	N1 Limit	% RPM	256	14		0.015	150	250		
	0 3 F	Maximum Available EPR		4	12		0.001	100	200		
	0 4 D	S/W REV-Tank		(1)	16		N/A	TBD	TBD		
	1 0 A	Max Allowed Fan Speed	%	117.5	13		0.032	100	500		
	1 0 B	Max Allowed Fan Speed	%	117.5	13		0.032	100	500		
	1 4 0	Air Density Ratio	Ratio	4	12		0.001	250	500		
3 4 3	0 0 3	N1 Derate	% RPM	256	14		0.015	100	200		
	0 0 3	EPR Rate		4	12		0.001	100	200		
	0 1 A	N1 Demand	% RPM	256	12		0.063	20	50		
	1 0 A	N1 Command vs. TLA	%	117.5	13		0.032	31.3	100		
	1 0 B	N1 Command vs. TLA	%	117.5	13		0.032	31.3	100		
3 4 4	0 1 A	N2	% RPM	256	14		0.015	50	100		
	0 1 C	N2	% RPM	256	14		0.015	50	100		
	0 2 9	N2	% RPM	256	14		0.015	50	100		
	0 2 F	N2	% RPM	256	14		0.015	25	50		
	0 3 3	N2	% RPM	256	14		0.015	50	200		
	0 3 F	N2	% RPM	256	14		0.015	25	50		
	1 0 A	Selected Actual Core Speed	%	128	12		0.063	31.3	100		
	1 0 B	Selected Actual Core Speed	%	128	12		0.063	31.3	100		
	1 3 A	N2 Speed	% RPM	256	14		0.015	25	50		
	0 D 0	N2	% RPM	256	13		0.03				SDI 1 = L/SDI 2 = R
3 4 5	0 1 A	Exhaust Gas Temperature	Deg C	2048	12		0.5	100	200		
	0 1 C	Exhaust Gas Temperature	Deg C	2048	12		0.5	100	200		
	0 2 9	Exhaust Gas Temperature	Deg C	2048	12		0.5	50	100		
	0 2 F	Exhaust Gas Temperature	Deg C	2048	12		0.5	25	50		
	0 3 3	Exhaust Gas Temperature	Deg C	2048	12		0.5	100	200		
	0 3 F	Exhaust Gas Temperature	Deg C	2048	12		0.5	25	50		
	1 0 A	Selected Exhaust Gas Temp (Total)	Deg C	-55 to 1100	11		1.00	62.5	250		
	1 0 B	Selected Exhaust Gas Temp (Total)	Deg C	-55 to 1100	11		1.00	62.5	250		
	1 3 A	EGT Trimmed	Deg C	2048	12		0.5	25	50		
	0 D 0	EGT	Deg C	2048	12		0.5				SDI 1 = L/SDI 2 = R
3 4 6	0 0 3	N1 Actual	% RPM	256	14		0.015	100	200		
	0 1 A	N1 Actual	% RPM	256	14		0.015	100	200		
	0 2 F	N1 Actual	% RPM	256	14		0.015	25	50		
	0 3 3	N1 Actual	% RPM	256	14		0.015	50	200		
	0 3 F	N1 Actual	% RPM	256	14		0.015	25	50		
	0 4 D	Cable Cap-Hi-Z	PF	65535	15		2.0	100	200		
	1 0 A	Selected Actual Fan Speed	%	128	12		0.063	31.3	100		
	1 0 B	Selected Actual Fan Speed	%	128	12		0.063	31.3	100		
	1 3 A	N1 Speed Actual	% N1Nom	256	14		0.015	25	50		
	0 D 0	N1	% RPM	256	13		0.03				SDI 1 = L/SDI 2 = R
3 4 7	0 2 9	Fuel Flow (Engine)	Lbs/Hr	32768	12		8	50	100		
	1 0 A	LPT Clearance Valve Position	%	-5 to 105	11		0.063	500	1000		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
	1 0 B	LPT Clearance Valve Position	%	-5 to 105	11		0.063	500	1000		
	1 3 A	Fuel Flow	Lbs/Hr	32768	14		2	50	100		
	0 D 0	Fuel Flow	Lbs/Hr	32768	12		8				SDI 1 = L/SDI 2 = R
3 5 2	1 4 0	Maintenance Flight Controller	Flights	524, 287	19		1				
3 5 3	0 D 0	Vibration	Scalar	5.12	8		0.02				SDI 1 = L/SDI 2 = R
3 5 4	0 3 D	N1 Vibration	Scalar	5.12	9		0.01				Bit 11-Chan. A Bit 12-Chan. B
3 5 5	0 3 D	N2 Vibration	Scalar	5.12	9		0.01				Bit 11-Chan. A Bit 12-Chan. B
3 5 6	0 3 D	N2 Vibration	Scalar	5.12	9		0.01				Bit 11-Chan. A Bit 12-Chan. B
3 5 7	0 3 D	BB Vibration	Scalar	5.12	9		0.01				Bit 11-Chan. A Bit 12-Chan. B
3 6 0	0 0 2	Flight Information									6-33
	0 0 4	Potential Vertical Speed	Ft/Min	32768	15		1.0	10	20		
	0 0 5	Potential Vertical Speed	Ft/Min	32768	15		1.0	25	50		
	0 3 8	Potential Vertical Speed	Ft/Min	32768	15		1.0	10	20		
	0 3 D	N1 Rotor Imbalance Angle	Deg.	±180	9		1.0				Bit 11-Chan. A Bit 12-Chan. B
	0 5 6	Flight Information									6-33
	0 6 0	Flight Information									6-33
	1 0 A	Throttle Rate of Change	Deg/Sec	±16	9/9		1.00	31.3	100		See Notes [6] & [7]
	1 0 B	Throttle Rate of Change	Deg/Sec	±16	9/9		1.00	31.3	100		See Notes [6] & [7]
	1 4 2	RAIM Status Word	N.M.	16	13		0.00195				
3 6 1	0 0 4	Altitude (Inertial)	Feet	131072	20		0.125	20	40		
	0 0 5	Altitude (Inertial)	Feet	131072	18		0.5	20	40		
	0 3 8	Altitude (Inertial)	Feet	131072	20		0.125	20	40		
	0 3 D	LPT Rotor Imbalance Angle (737 only)	Deg.	±180	9		1.0				Bit 11-Chan. A Bit 12-Chan. B
	1 0 A	Derivative of Thrust vs. N1	DFN/%N1	2000	11		2.0	62.5	250		See Note [6]
	1 0 B	Derivative of Thrust vs. N1	DFN/%N1	2000	11		2.0	62.5	250		See Note [6]
3 6 2	0 0 4	Along Track Horizontal Acceleration	g	4	12		0.001	10	20		
	0 3 8	Along Track Horizontal Acceleration	g	4	12		0.001	10	20		
	1 0 A	Derivative of N1 vs. TLA	% N1/Deg	12	11		0.008	62.5	250		See Note [6]
	1 0 B	Derivative of N1 vs. TLA	% N1/Deg	12	11		0.008	62.5	250		See Note [6]
	1 1 5	Range Rate	Knots	±8192	13		1.0	50	50		
3 6 3	0 0 4	Cross Track Acceleration	g	4	12		0.001	10	20		
	0 3 8	Cross Track Acceleration	g	4	12		0.001	10	20		
	1 0 A	Corrected Thrust	LBF	64000	11		64.0	62.5	250		See Note [6]
	1 0 B	Corrected Thrust	LBF	64000	11		64.0	62.5	250		See Note [6]
3 6 4	0 0 4	Vertical Acceleration	g	4	12		0.001	10	20		
	0 0 5	Vertical Acceleration	g	4	12		0.001	10	20		
	1 3 A	N1 APR Rating	% N1Nom	256	14		0.015	100	200		
	0 3 8	Vertical Acceleration	g	4	12		0.001	10	20		
3 6 5	0 0 4	Inertial Vertical Velocity (EFI)	Ft/Min	32768	15		1.0	20	40		
	0 0 5	Inertial Vertical Velocity (EFI)	Ft/Min	32768	15		1.0	20	40		
	1 3 A	N1 Max Reverse	% N1Nom	256	14		0.015	100	200		
	0 3 8	Inertial Vertical Velocity (EFI)	Ft/Min	32768	15		1.0	20	40		

ATTACHMENT 2
DATA STANDARDS

TABLE 2 - BNR DATA

Label	Eqpt ID (Hex)	Parameter Name	Units	Range (Scale)	Sig Bits	Pos Sense	Resolution	Min Transit Interval (msec) 2	Max Transit Interval (msec) 2	Max Trans-port Delay (msec) 3	Notes & Cross Ref. to Tables and Attachments
3 6 6	0 0 4	North-South Velocity	Knots	4096	15		0.125	50	100		6-2-1
	1 3 A	IGV Position	Deg/180	±180	12		0.05	100	200		
	0 3 8	North-South Velocity	Knots	4096	15		0.125	50	100		
3 6 7	0 0 4	East-West Velocity	Knots	4096	15		0.125	100	200		
	1 3 A	IGV Request	Deg/180	±180	12		0.05	100	200		
	0 3 8	East-West Velocity	Knots	4096	15		0.125	100	200		
3 7 0	0 0 4	g	9	8	13	UP	0.001	100	200	110	
	0 0 5	g	9	8	13	UP	0.001	100	200	110	
	0 0 B	GNSS Height WGS-84 (HAE)	Feet	± 131.072	20		0.125		1200		
	0 2 5	Decision Height Selected (EFI)	Feet	8192	16		0.125	100	200		
	0 C 5	Decision Height Selected (EFI)	Feet	16384	17		0.125	100	200		
3 7 1	X X X	Gen Aviation Equip. Identifier									
3 7 2	0 0 5	Wind Direction-Magnetic	Deg/180	±180	9		0.35	50	100		
	1 0 A	Actual Fan Speed	%	128	12		0.063	500	1000		
	1 0 B	Actual Fan Speed	%	128	12		0.063	500	1000		
3 7 3	0 0 5	North-South Velocity-Magnetic	Knots	4096	15		0.125	100	200		
	1 0 A	Actual Core Speed	%	128	12		0.063	500	1000		
	1 0 B	Actual Core Speed	%	128	12		0.063	500	1000		
3 7 4	0 0 5	East-West Velocity-Magnetic	Knots	4096	15		0.125	100	200		
	1 0 A	Left Thrust Reverser Position	%	-5+105	11		0.063	500	1000		
	1 0 B	Left Thrust Reverser Position	%	-5+105	11		0.063	500	1000		
3 7 5	0 0 4	Along Heading Acceleration	Gs	4	18		1.53E-5	50	110		
	0 0 5	Along Heading Acceleration	g	4	12		0.001	10	20		
	0 3 3	Spare DC1	VDC	16	12		0.004	150	250		
	0 3 8	Along Heading Acceleration	Gs	4	18		1.53E-5	50	110		
	1 0 A	Right Thrust Reverser Position	%	-5 to 105	11		0.063	500	1000		
	1 0 B	Right Thrust Reverser Position	%	-5 to 105	11		0.063	500	1000		
	X X X	GPS Differential Correction, Word A									See ARINC 743A
3 7 6	0 0 4	Cross Heading Acceleration	Gs	4	18		1.53E-5	50	110		
	0 0 5	Cross Heading Acceleration	g	4	12		0.001	10	20		
	0 3 3	Spare DC2	VDC	16	12		0.004	150	250		
	0 3 8	Cross Heading Acceleration	Gs	4	18		1.53E-5	50	110		
	X X X	GPS Differential Correction, Word B									See ARINC 743A