Data Packet	*Reliable*	*Packet Type Length*	*Payload Data Type*	*Payload Precision*	*Payload Length*	*Value Scaler*	*Delimiters*	*Sequence Number Length*	*Checksum Length*	*Message Length*
CAL-INFO										
CAL-NEXT										
CAL-DONE										
CON-BOOT										
CON-RESET	YES	8	N/A	0	0	N/A	4	4	2	18
CON-OFF	YES	6	N/A	0	0	N/A	4	4	2	16
CON-TAKEOFF	YES	10	N/A	0	0	N/A	4	4	2	20
CON-HOVER	YES	8	N/A	0	0	N/A	4	4	2	18
CON-LAND	YES	7	N/A	0	0	N/A	4	4	2	17
CON-MANUAL										
CON-AUTO										
CON-PACKET	YES	9	INTEGER	4	4	1	5	4	2	24
INF										
ERR	YES	5	INTEGER	5	5	1	4	4	2	20
MAN-THROTTLE										
MAN-ROLL										
MAN-YAW										
MAN-PITCH										
MAN-#	NO	3	PWM	3	12	1	7	4	2	28
MOTOR	NO	0	BYTE	1	4	1	1	0	0	5
NET-ACK	YES	6	N/A	0	0	N/A	4	4	2	16
NET-NCK	YES	6	N/A	0	0	N/A	4	4	2	16
NET-TEST	NO	7	N/A	0	0	N/A	4	4	2	17
NET-ID	YES	5	PWM	3	3	1	5	4	2	19
NET-BAUD	YES	7	INTEGER	4	4	100	5	4	2	22
SEN-ACC	NO	6	DECIMAL	4	15	1000	7	4	2	34
SEN-CMP	NO	6	INTEGER	3	3	1	4	4	2	19
SEN-ULT	NO	6	INTEGER	3	15	1	9	4	2	36
SEN-GYR	NO	6	DECIMAL	4	15	1000	7	4	2	34
SEN-ENC	NO	6	INTEGER	4	16	1	8	4	2	36
SEN-ALT	NO	6	INTEGER	3	3	1	5	4	2	20
SEN-INU	NO	6	DECIMAL	4	30	1000	10	4	2	52
SEN-GPS	NO	6	GPS	6	28	10000	8	4	2	48
STA-POWMV	YES	8	DECIMAL	4	4	100	5	4	2	23
STA-POW5V	YES	8	DECIMAL	4	4	100	5	4	2	23
STA-POWMC	YES	8	DECIMAL	4	4	100	5	4	2	23
STA-BEAR	YES	7	INTEGER	3	3	1	5	4	2	21
STA-DIST	YES	7	INTEGER	4	4	1	5	4	2	22
STA-ALT	YES	6	INTEGER	4	4	1	5	4	2	21
STA-VID	YES	6	INTEGER	4	4	1	5	4	2	21
STA-GPSNOFIX	YES	11	N/A	0	0	N/A	4	4	2	21
STA-INUNOFIX	YES	11	N/A	0	0	N/A	4	4	2	21
STA-GPSFIX	YES	9	N/A	0	0	N/A	4	4	2	19
STA-INUFIX	YES	9	N/A	0	0	N/A	4	4	2	19
STA-COND	YES	7	TEXT	0	14	N/A	5	4	2	32
WPT-ADD	YES	6	INTEGER,GPS,GPS, INTEGER	6	22	10000	8	4	2	42
WPT-RESET	YES	8	N/A	0	0	N/A	4	4	2	18
WPT-LOOP	YES	7	INTEGER	4	4	1	5	4	2	22

Data Packet	*Reliable*	*Packet Type Length*	*Payload Data Type*	*Payload Precision*	*Payload Length*	*Value Scaler*	*Delimiters*	*Sequence Number Length*	*Checksum Length*	*Message Length*
WPT-GO	YES	5	N/A	0	0	N/A	4	4	2	15
WPT-GO-#	YES	5	INTEGER	4	4	1	5	4	2	20
WPT-PAUSE	YES	8	N/A	0	0	N/A	4	4	2	18
WPT-STOP	YES	7	N/A	0	0	N/A	4	4	2	17

PWM values range between 0 and 255.
GPS values (latitude and longitude) will be 6 decimal digits long (with an optional sign byte) and represent the value in decimal degrees multiplied by 10000 (to avoid any decimal point).
INTEGERS will be unsigned and 4 decimal digits long and will rollover after 10000 (to avoid any decimal point).
DECIMAL will be 4 decimal digits (with an optional sign byte) and represent the value scaled by the number that is defined with that Data Type (to avoid any decimal point)
TEXT will be a string of a maximum length of 255 characters or smaller, depending on the Packet Type.
BYTE will be a string of Bytes.
Checksum's will be an unsigned and 2 hexadecimal digits long and will rollover after reaching 0xFF.
Sequence Numbers will be unsigned and 4 decimal digits long and will rollover after reaching 9999.
Reliable denotes whether Program should use the sequence number attached to a Packet and if a Packet is received that is out of sequence the Receiver should request the missing Packet(s)

Data Packet	*Packet Size*	*Interface*				*Vehicle Primary*				*Vehicle Secondary*				*Remote Control*				*Date*	*Comments*
		Transmit	Receive	Pri	BW	Transmit	Receive	Pri	BW	Transmit	Receive	Pri	BW	Transmit	Receive	Pri	BW		
Percent Complete:		71.15%	90.38%			0.00%	0.00%			65.38%	86.54%			48.08%	82.69%				
CAL-INFO	0	AWM	AWM	1	0			1	0			1	0			1	0	6/14/2010	
CAL-NEXT	0	AWM	AWM	1	0			1	0			1	0			1	0	6/14/2010	
CAL-DONE	0	AWM	AWM	1	0			1	0			1	0			1	0	6/14/2010	
CON-BOOT	0	AWM		1	0			1	0	AWM	DONE	1	0	AWM		1	0	10/1/2010	
CON-RESET	18	AWM	AWM	1	18			1	18	AWM	DONE	1	18	AWM		1	18	10/1/2010	
CON-OFF	16	DONE	DONE	1	16			1	16	AWM	DONE	1	16	AWM		1	16	10/1/2010	
CON-TAKEOFF	20	DONE	DONE	1	20			1	20	AWM	DONE	1	20	AWM		1	20	10/1/2010	
CON-HOVER	18	DONE	DONE	1	18			1	18	AWM	DONE	1	18	AWM		1	18	10/1/2010	
CON-LAND	17	DONE	DONE	1	17			1	17	AWM	DONE	1	17	AWM		1	17	10/1/2010	
CON-MANUAL	0	AWM	DONE	1	0			1	0	AWM	DONE	1	0	AWM		1	0	10/1/2010	
CON-AUTO	0	AWM	DONE	1	0			1	0	AWM	DONE	1	0	AWM		1	0	10/1/2010	
CON-PACKET	24	AWM	AWM	1	24			1	24	AWM	AWM	1	24	AWM	AWM	1	24		
INF	0	AWM	DONE	1	0			1	0	AWM	AWM	1	0	AWM	AWM	1	0	10/1/2010	
ERR	20	DONE	DONE	2	2			2	2	DONE	DONE	2	2	AWM	AWM	2	2	10/1/2010	
MAN-THROTTLE	0	AWM	DONE	1	0			1	0		AWM	1	0			1	0	10/1/2010	
MAN-ROLL	0	AWM	DONE	1	0			1	0		AWM	1	0			1	0	10/1/2010	
MAN-YAW	0	AWM	DONE	1	0			1	0		AWM	1	0			1	0	10/1/2010	
MAN-PITCH	0	AWM	DONE	1	0			1	0		AWM	1	0			1	0	10/1/2010	
MAN-#	28	DONE		1	28			1	28		DONE	1	28	AWM		1	28	10/1/2010	
MOTOR	5			1	5			1	5			1	5	AWM	AWM	1	5	6/14/2010	
NET-ACK	16	DONE	DONE	2	1.6			2	1.6	AWM	DONE	2	1.6	AWM	AWM	2	1.6	10/1/2010	
NET-NCK	16	DONE	DONE	2	1.6			2	1.6	AWM	DONE	2	1.6	AWM	AWM	2	1.6	10/1/2010	
NET-TEST	17	DONE	DONE	2	1.7			2	1.7	AWM	DONE	2	1.7	AWM	AWM	2	1.7	10/1/2010	
NET-ID	19	DONE	DONE	2	1.9			2	1.9	AWM	DONE	2	1.9	AWM	AWM	2	1.9	10/1/2010	
NET-BAUD	22	AWM	DONE	3	0.22			3	0.22	AWM		3	0.22	AWM	AWM	3	0.2	10/1/2010	
SEN-ACC	34		DONE	2	3.4			2	3.4	DONE		2	3.4			2	3.4	10/1/2010	
SEN-CMP	19		DONE	2	1.9			2	1.9	DONE		2	1.9			2	1.9	10/1/2010	
SEN-ULT	36		DONE	2	3.6			2	3.6	DONE		2	3.6			2	3.6	10/1/2010	
SEN-GYR	34		DONE	2	3.4			2	3.4	DONE		2	3.4			2	3.4	10/1/2010	
SEN-ENC	36		DONE	2	3.6			2	3.6	DONE		2	3.6			2	3.6	10/1/2010	
SEN-ALT	20		DONE	1	20			1	20	DONE		1	20			1	20	10/1/2010	
SEN-INU	52		DONE	1	52			1	52	DONE	DONE	1	52	AWM		1	52	10/1/2010	
SEN-GPS	48		DONE	1	48			1	48	DONE		1	48	AWM		1	48	10/1/2010	
STA-POWMV	23		DONE	2	2.3			2	2.3	DONE		2	2.3			2	2.3	10/1/2010	
STA-POW5V	23		DONE	2	2.3			2	2.3	DONE		2	2.3			2	2.3	10/1/2010	
STA-POWMC	23		DONE	2	2.3			2	2.3	DONE		2	2.3			2	2.3	10/1/2010	
STA-BEAR	21		DONE	3	0.21			3	0.21	DONE		3	0.21			3	0.2	10/1/2010	
STA-DIST	22		DONE	3	0.22			3	0.22	DONE		3	0.22			3	0.2	10/1/2010	
STA-ALT	21		DONE	3	0.21			3	0.21	DONE		3	0.21			3	0.2	10/1/2010	
STA-VID	21		DONE	3	0.21			3	0.21	AWM		3	0.21			3	0.2	10/1/2010	
STA-GPSNOFIX	21		DONE	3	0.21			3	0.21	AWM		3	0.21	AWM		3	0.2	10/1/2010	
STA-INUNOFIX	21		DONE	3	0.21			3	0.21	AWM		3	0.21	AWM		3	0.2	10/1/2010	
STA-GPSFIX	19		DONE	3	0.19			3	0.19	DONE		3	0.19	AWM		3	0.1	10/1/2010	
STA-INUFIX	19		DONE	3	0.19			3	0.19	DONE		3	0.19	AWM		3	0.1	10/1/2010	
STA-COND	32		DONE	2	3.2	AWM	AWM	2	3.2	DONE	AWM	2	3.2	AWM		2	3.2	10/1/2010	
WPT-ADD	42	DONE		1	42			1	42			1	42			1	42	6/14/2010	
WPT-RESET	18	DONE		1	18			1	18			1	18			1	18	6/14/2010	
WPT-LOOP	22	AWM		1	22			1	22			1	22			1	22	6/14/2010	
WPT-GO	15	DONE		1	15			1	15			1	15			1	15	6/14/2010	
WPT-GO-#	20	DONE		1	20			1	20			1	20			1	20	6/14/2010	
WPT-PAUSE	18	DONE		1	18			1	18			1	18	AWM		1	18	6/14/2010	
WPT-STOP	17	DONE		1	17			1	17			1	17	AWM		1	17	6/14/2010	

	RCU-Vehicle		GCS-Vehicle		RCU-GCS		Primary-Secondary	
C2 Links	(Wireless,Manual)		(Wireless,Manual)		(Wireless,Manual)		(Wired,Manual)	
Parameter	TX	RX	TX	RX	TX	RX	TX	RX
Selected Messages	ERR,MAN-#	ERR,STA-POWMV,STA-COND	ERR,MAN-#	ERR,SEN-INU,STA-POWMV, STA-POW5V,STA-POWMC, STA-BEAR,STA-DIST,STA-ALT,STA-GPSFIX,STA-INUFIX, STA-COND	ERR,STA-COND	ERR,STA-COND	ERR,MAN-#,	ERR,SEN-INU,
Traffic (Bytes)	30	7.5	30	65.12	5.2	5.2	30	54
Baud Rate (bps)	9600		9600		9600		115200	
Update Frequency (hz)	40.00	160.00	40.00	18.43	230.77	230.77	480.00	266.67
Assumptions:	Communications Channel will be “filled”.							
	No dropped packets							
	Follows ICARUS Communications Protocol							