MST-ISR-EEJ Experiment Manual (Enero 2014)

Antenna Configuration

"MST- ISR - EEJ"
Dr's G.Lehmacher/E. Kudeki / M.Milla
Mar 2011, Ene 2014

Antenna: 4 Beams
MST-ISR2 + Yellow cables
on N direction

North Quarter

4 3.41	5 3.41	2 3.41	3 3.41
5 2.78	2 2.78	3 2.78	4 2.78
2 2.15	3 2.15	4 2.15	5 2.15
3 5.52	4 5.52	5 5.52	2 5.52

East Quarter

2 2	3 5	3 3	3 2
5 3	2 2	2 4	2 3
3 3	4 2	4 4	4 3
2 4	3 3	3 5	3 4

West Quarter

4 4	5 3	5 5	5 4
3 5	4 4	4 2	4 5
5 5	2 4	2 2	2 5
4 2	5 5	5 3	5 2

South Quarter

4 4.89	5 4.89	2 4.89	3 4.89
5 4.26	2 4.26	3 4.26	4 4.26
2 3.63	3 3.63	4 3.63	5 3.63
3 3.00	4 3.00	5 3.00	2 3.00

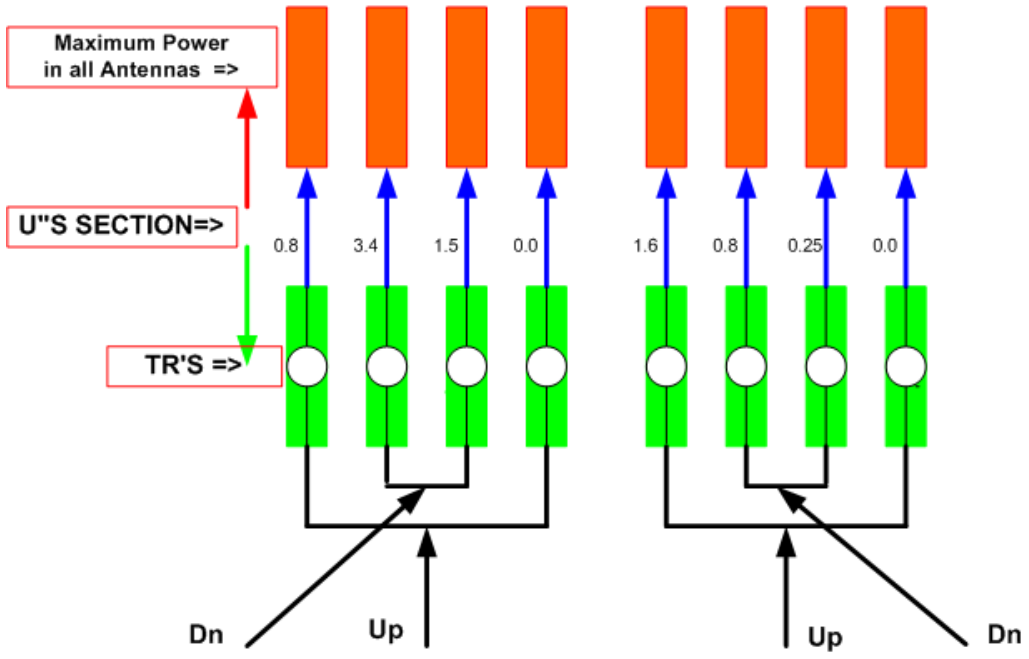


Figure 1

Switchyard configuration

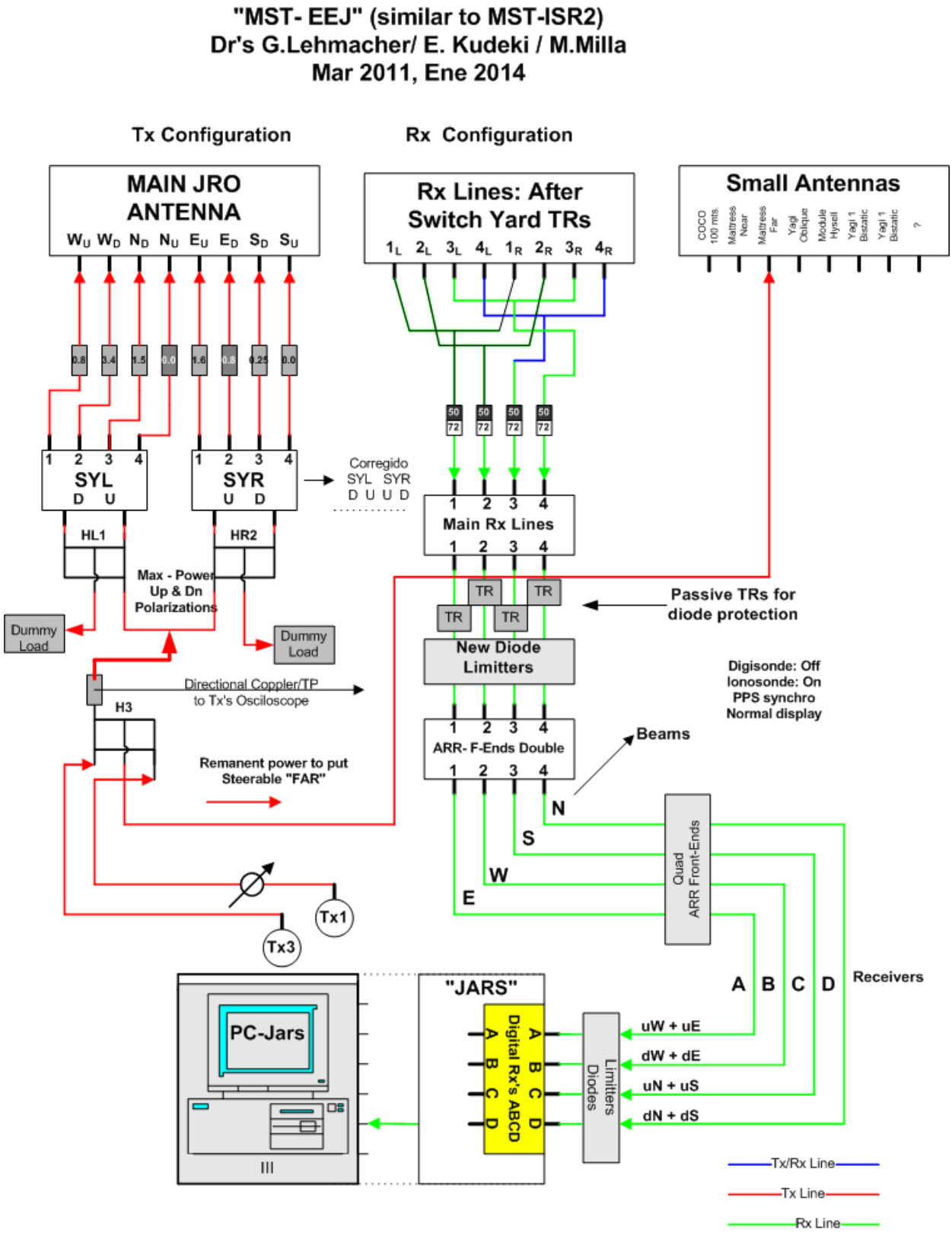


Figure 2

Antenna pattern

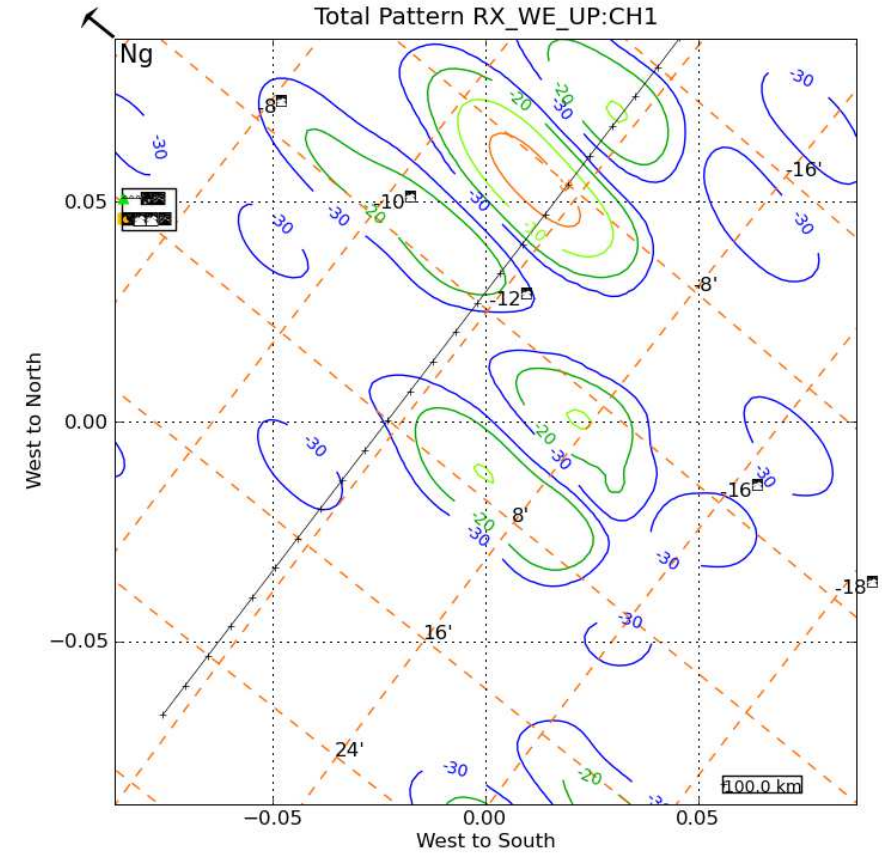


Figure 3

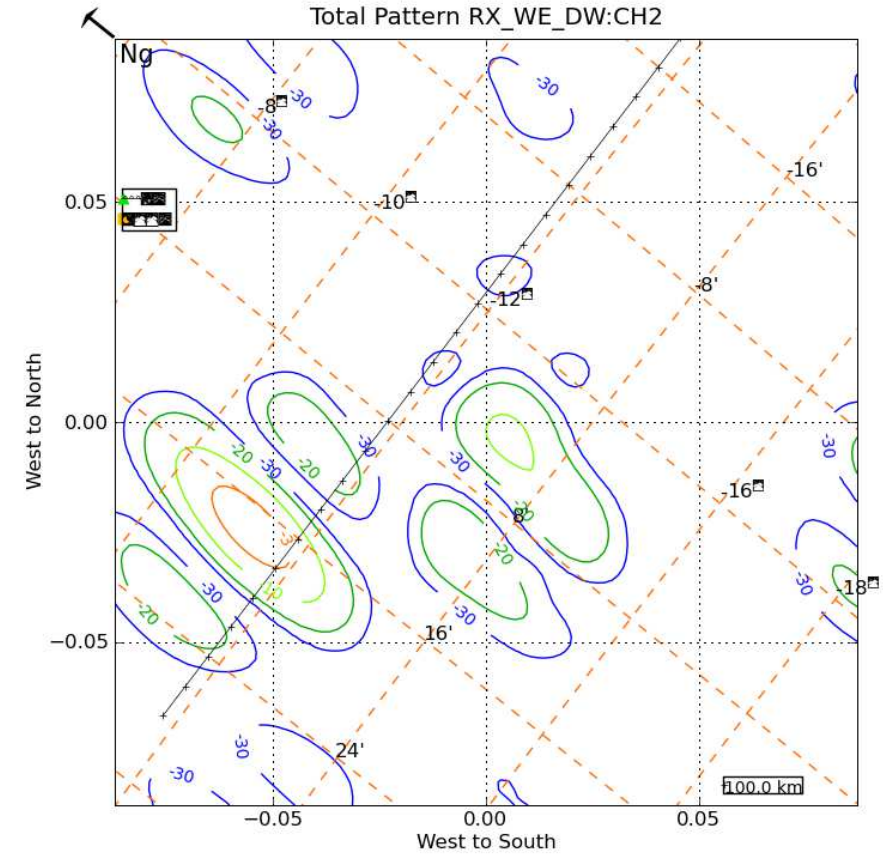
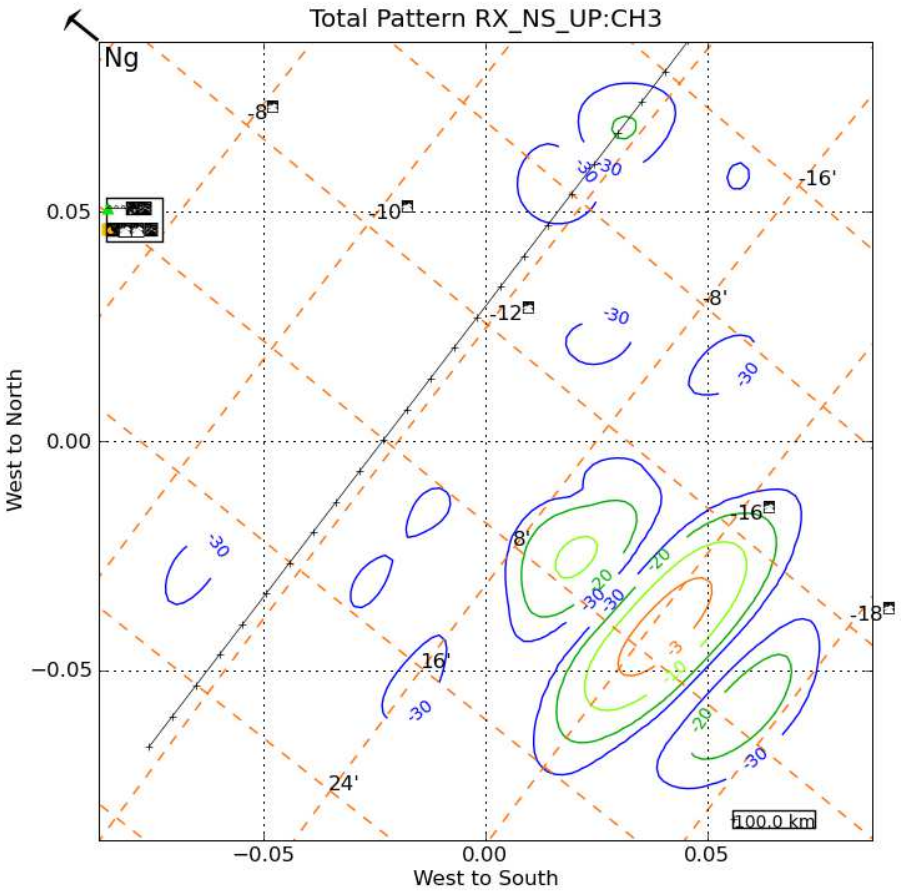
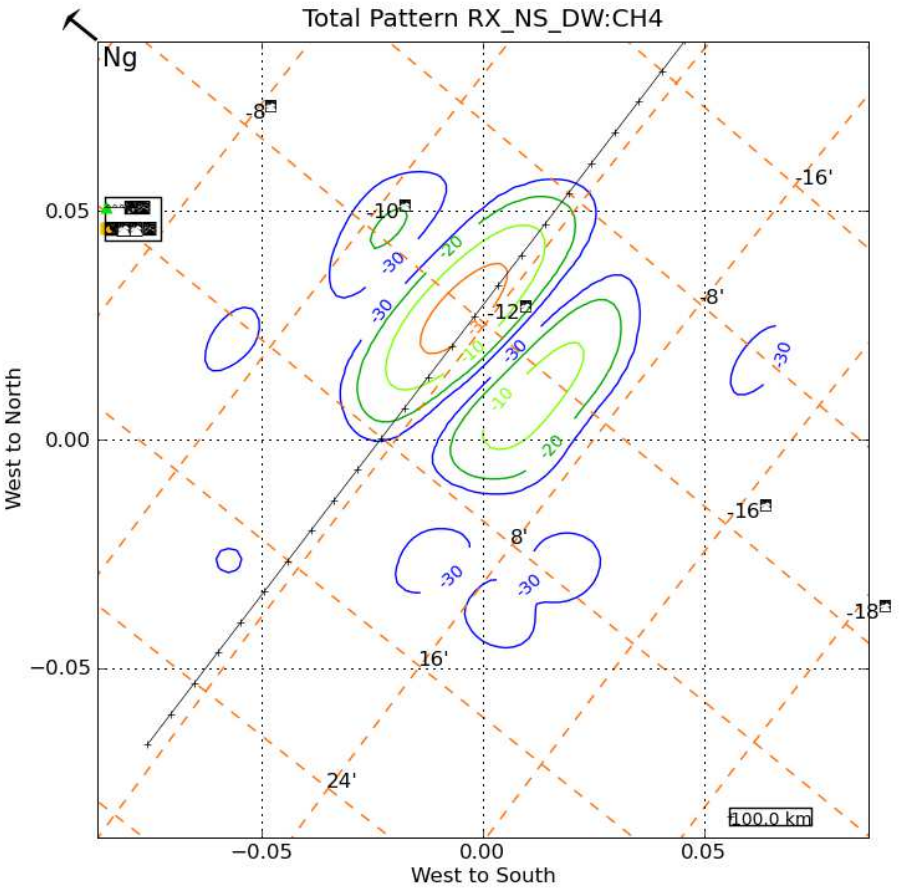


Figure 4



Over Jicamarca: 07-Jan-2014 (007)

Figure 5



Over Jicamarca: 07-Jan-2014 (007)

Figure 6

Pulse configuration

Exps	**MST – ISR - EEJ**		
Part	MST	ISR	EEJ
Sist Adq (PC)	JARS		
IPP(km)	202.5km	1012.5km	202.5km
TX	9.6 km (64us)	45km (300us)	0.15km (1us)
COde	Comp Code 64 (flip)	Barker3 (flip)	flip
Sampling window	H0 = 0km DH = 0.15km (1 us) NSA = 1350	H0 = 0km DH = 0.15km (1 us) NSA = 6750	H0 = 0km DH = 0.15km (1 us) NSA = 1350
Data Type	Raw Data		
# Channels	4		
Ntx per sequence	198		
Acq profiles	198		
BlockperFile	400		
Transmitter	2 Big TXs (with TOMCO)		
Antenna Tx	See Antenna Config (Fig.1)		
Antenna Rx	See Antenna Config (Fig.1)		
Synch	Syncrhonized with digisonde (x81)		

Table 1

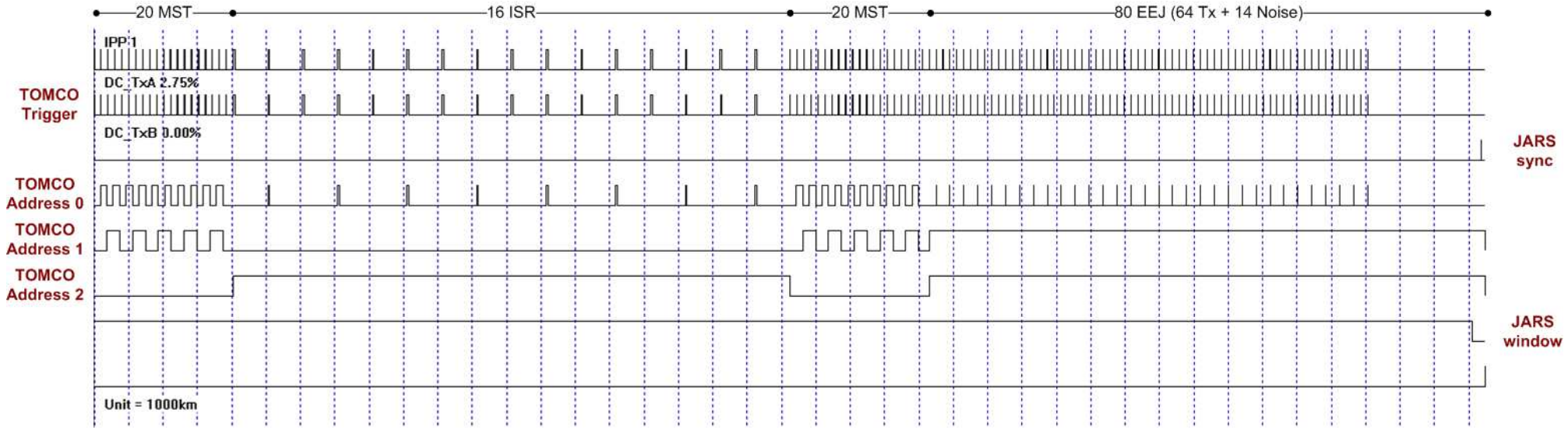


Figure 7

Log web page:
http://jro-log.igp.gob.pe/logs/isr

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ramiro.yanque@jro.igp.gob.pe

Conexiones en sala de Operaciones:

- **Conexiones de pulso de sincronismo y reloj**

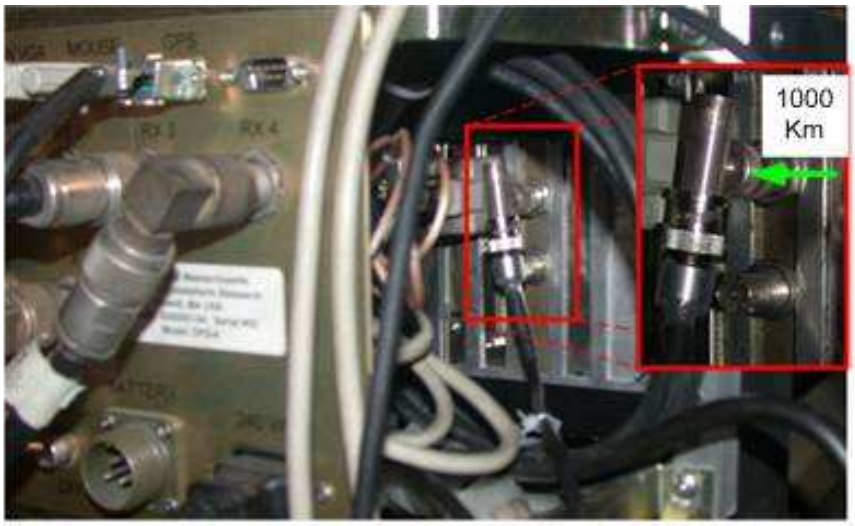

Figura 8 Pulso de 1000 Km de la Digisonda

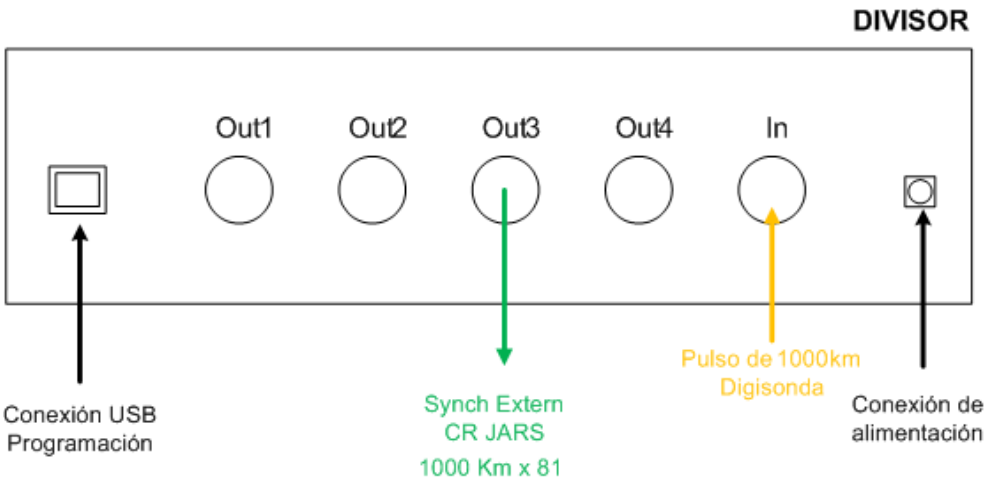

Figura 9 Pulso dividido x81

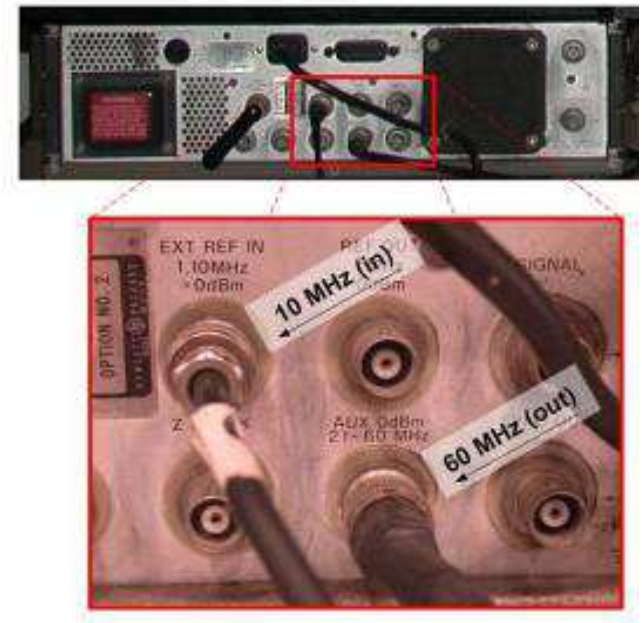

Figura 10
(Panel Posterior Generador HP)
Ingreso de 10MHz de DIGISONDA
Salida de 60MHz hacia el sistema

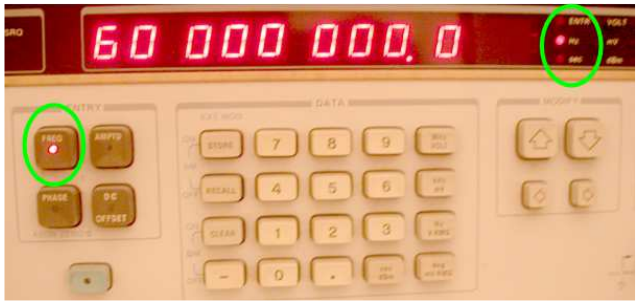

Figura 11 Generador de Señales HP (Panel Frontal)

- **Conexiones del controlador de radar al transmisor**

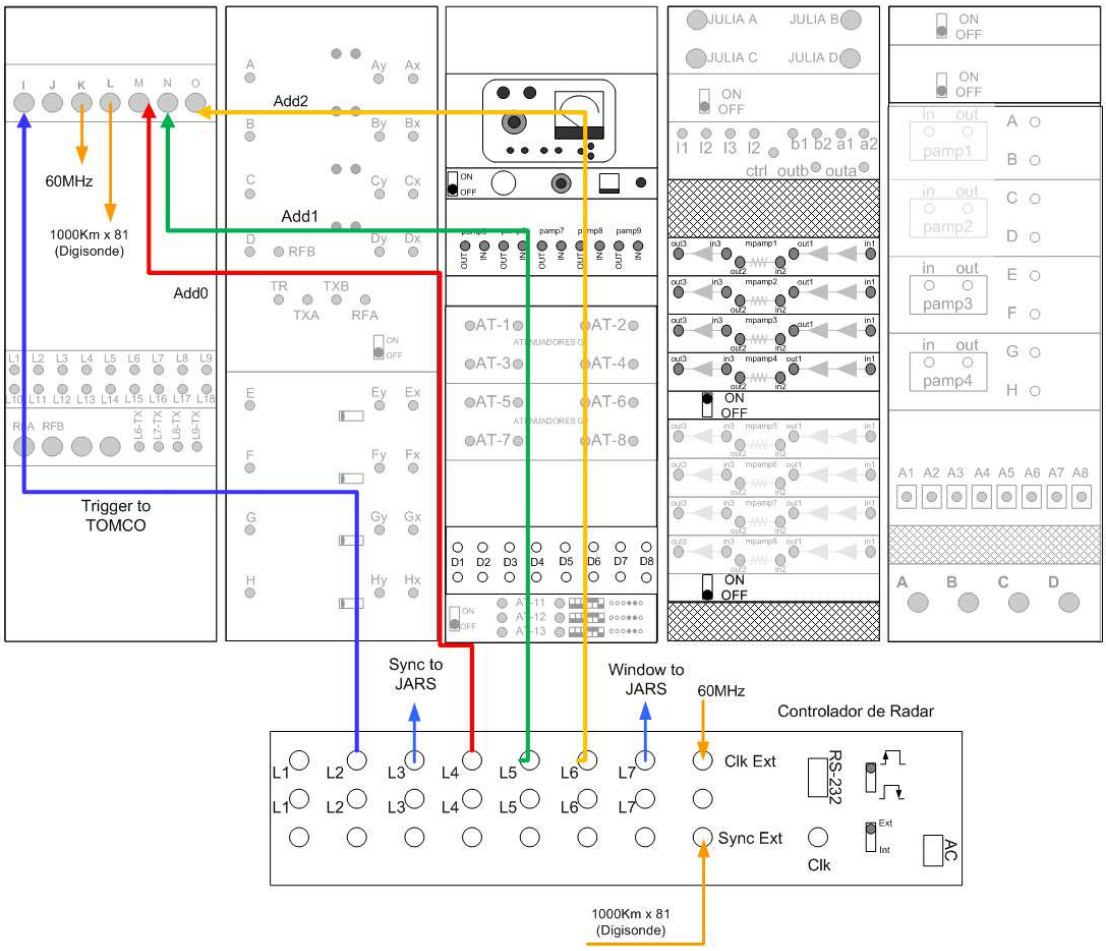

Figura 12

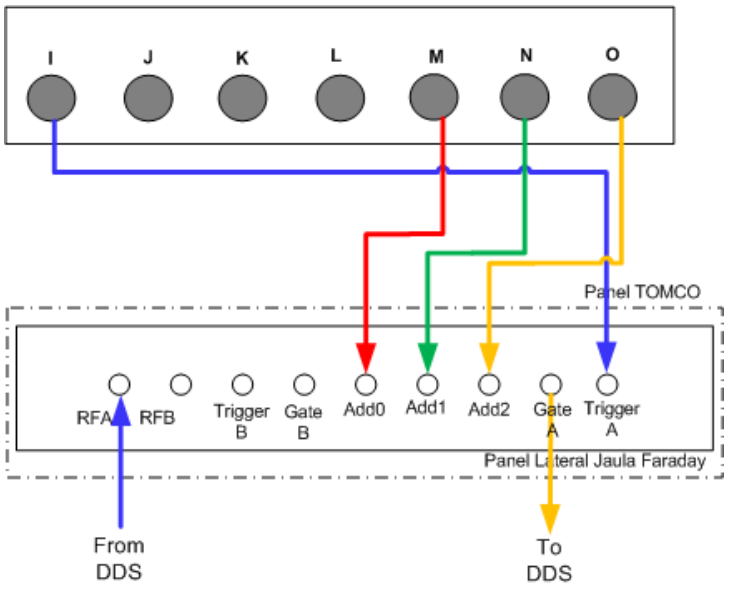

Figura 13

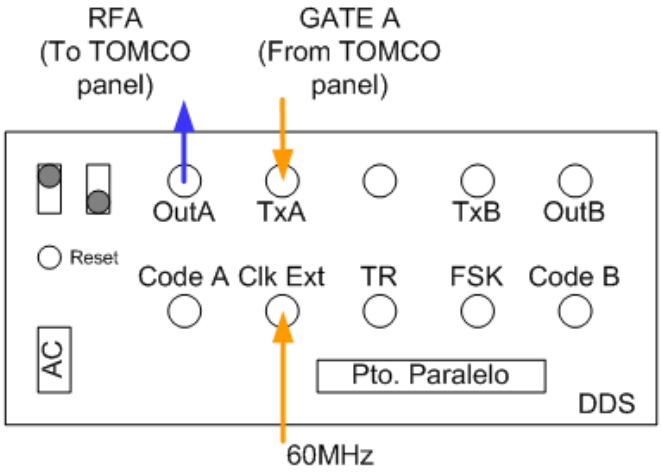

Figura 14

- **Conexiones de controlador de radar hacia el sistema de adquisición**

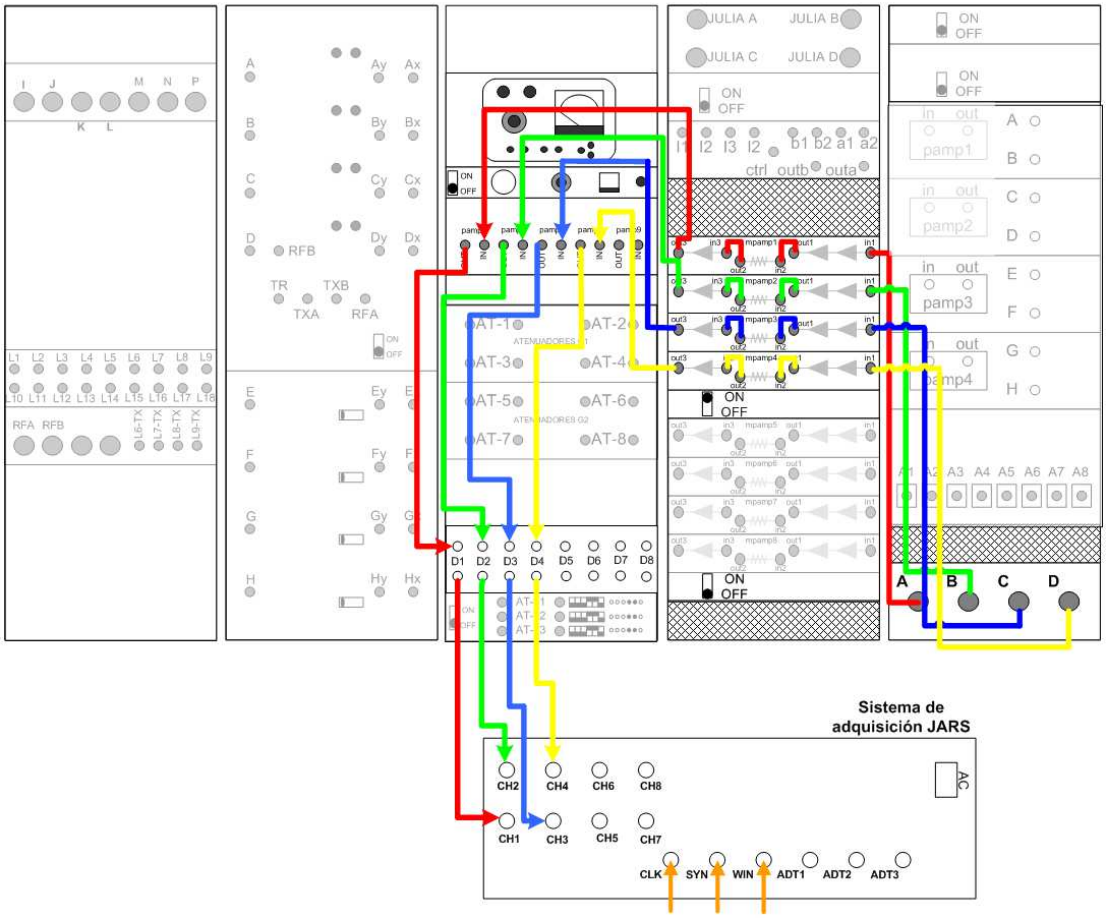

Figura 15

- **Paneles de configuración del controlador de radar**

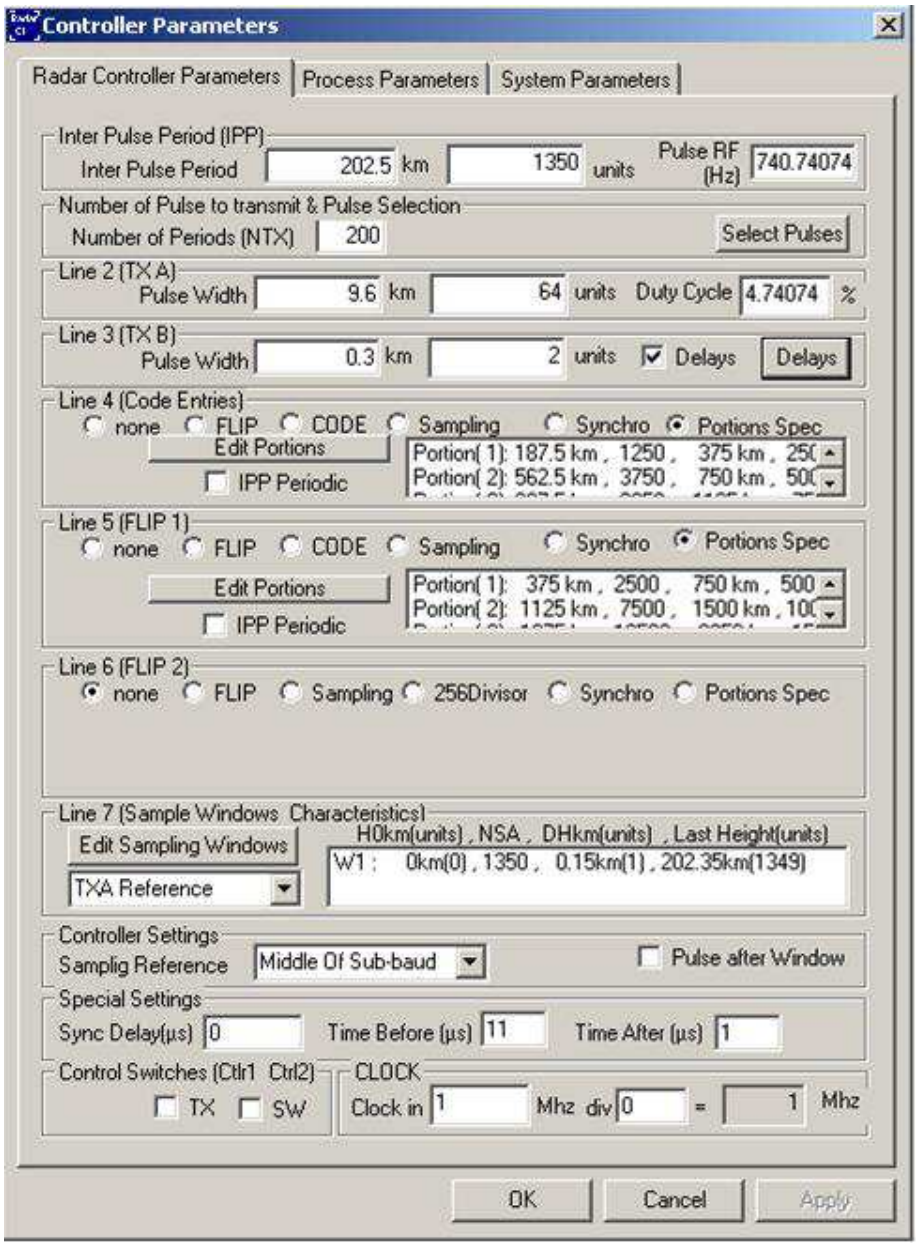

Figura 16 Experimento MST

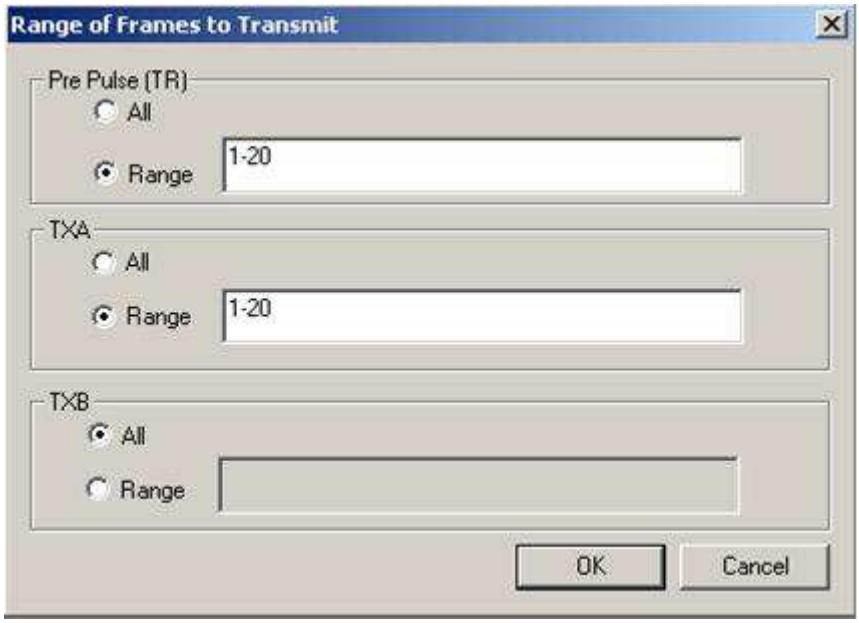

Figura 17 Selección de pulsos MST

Portion	Inicio (Km)	Fin (Fin)
1	375	750
2	1125	1500
3	1875	2250
4	2625	3000
5	3375	3750

Tabla 2 Configuración línea 5 MST

Portion	Inicio (Km)	Fin (Fin)
1	187.5	375
2	562.5	750
3	937.5	1125
4	1312.5	1500
5	1687.5	1875
6	2062.5	2250
7	2437.5	2625
8	2812.5	3000
9	3187.5	3375
10	3562.5	3750

Tabla 3 Configuración línea 4 MST

Retardo (Km)	40358

Tabla 4 Configuración línea 3 MST

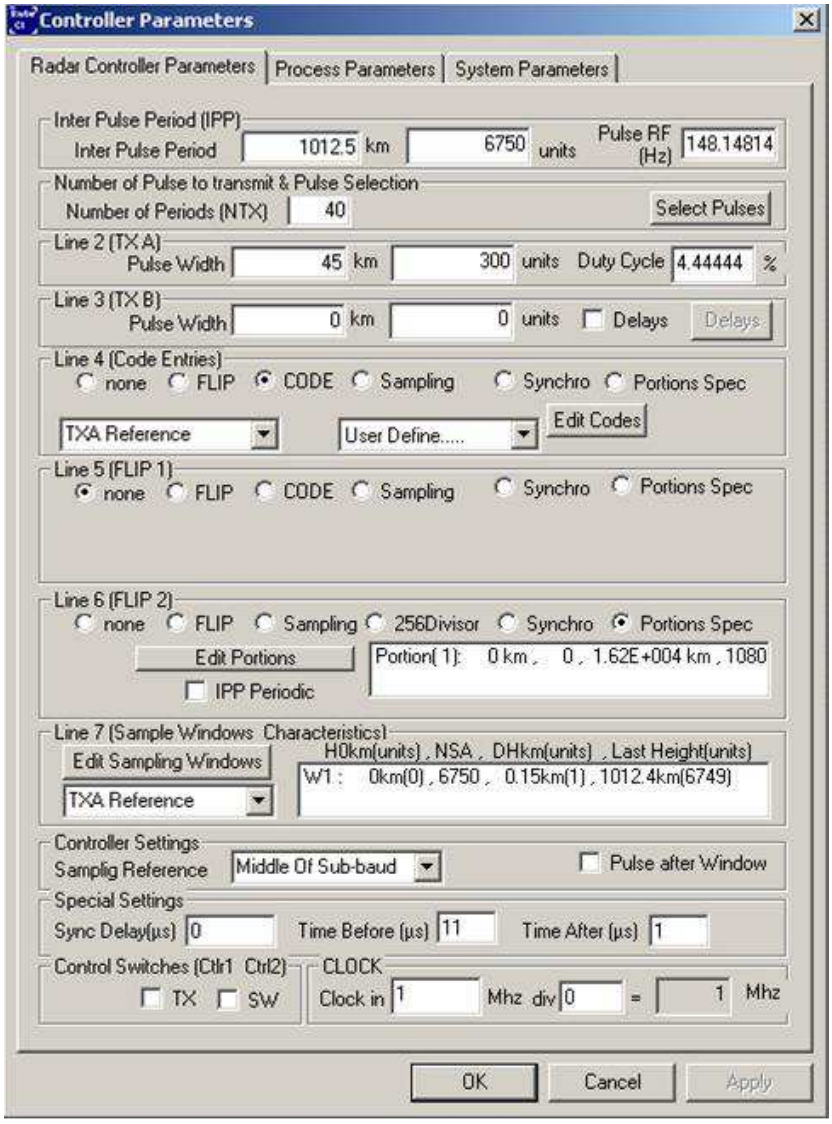

Figura 18 Experimento ISR

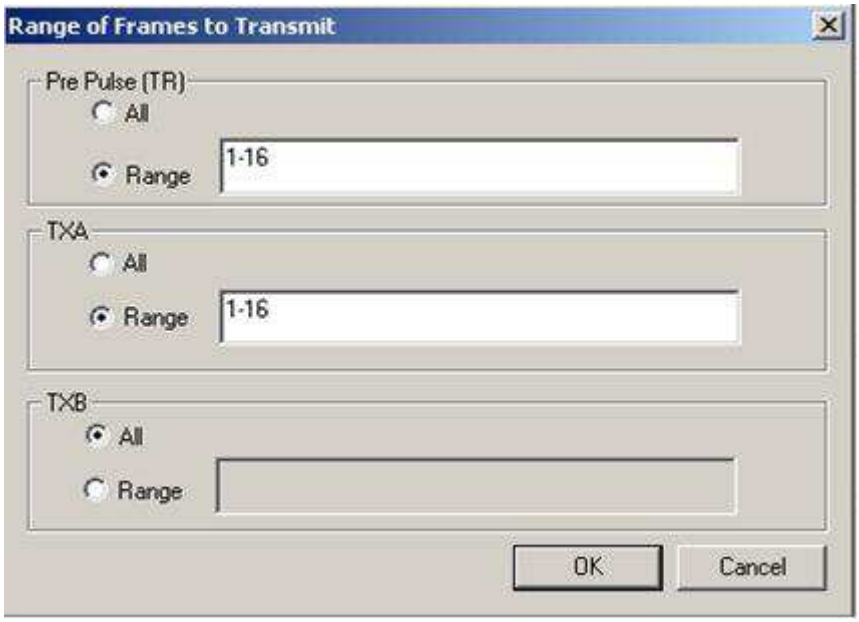

Figura 19 Selección de pulsos ISR

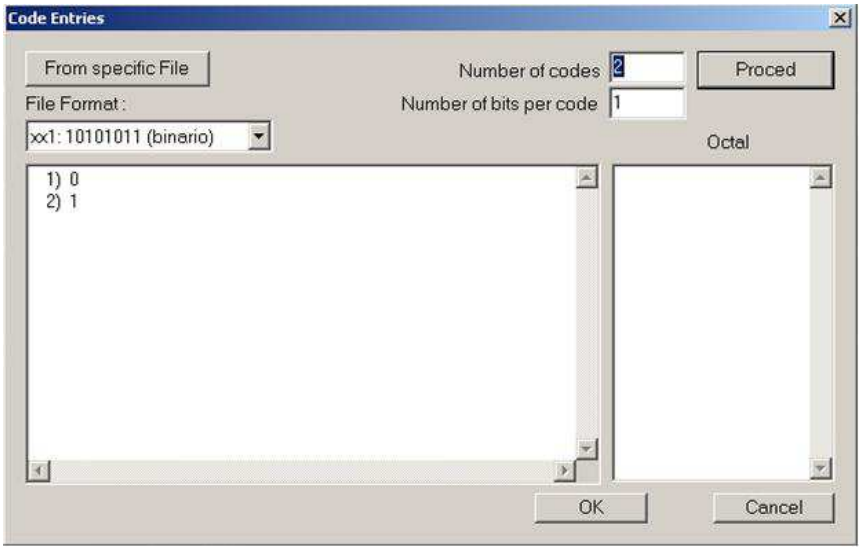

Figura 20 Configuración línea 4 ISR

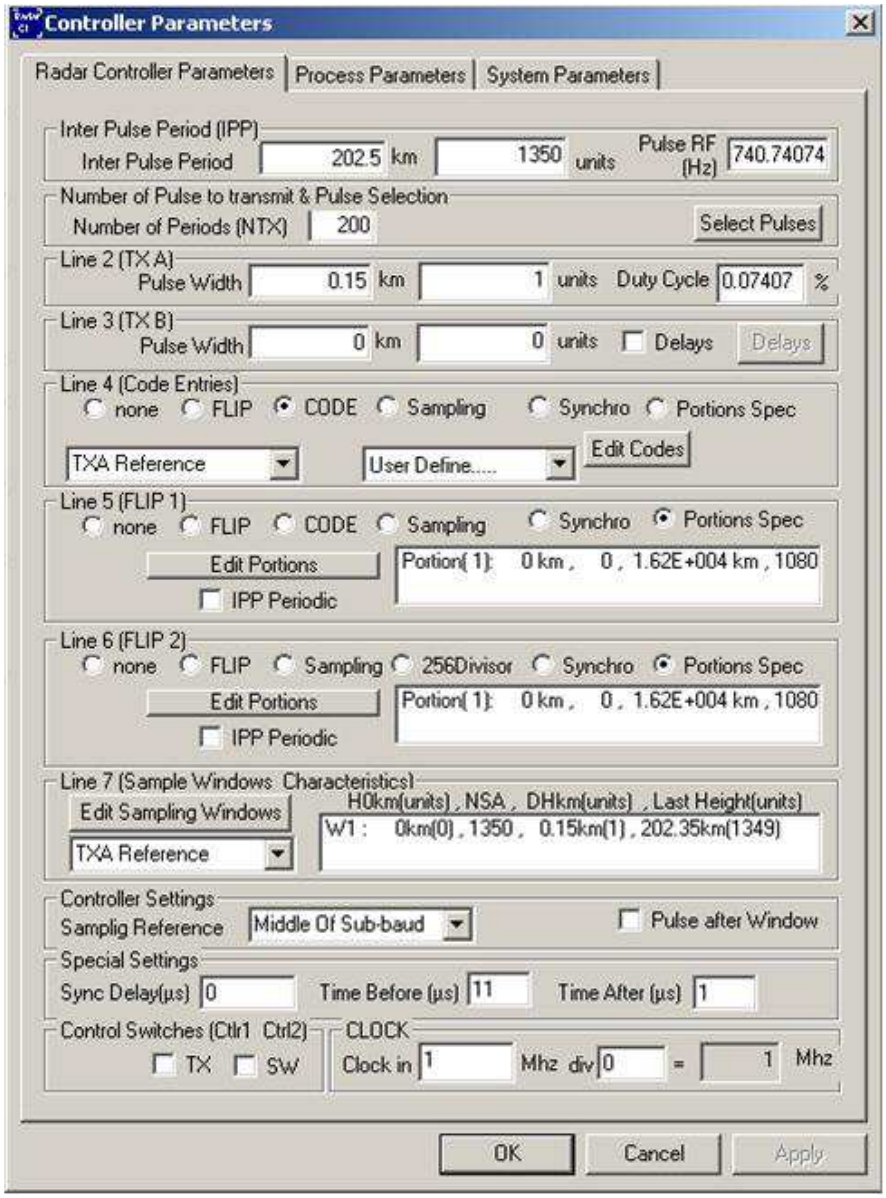

Figura 21 Experimento EEJ

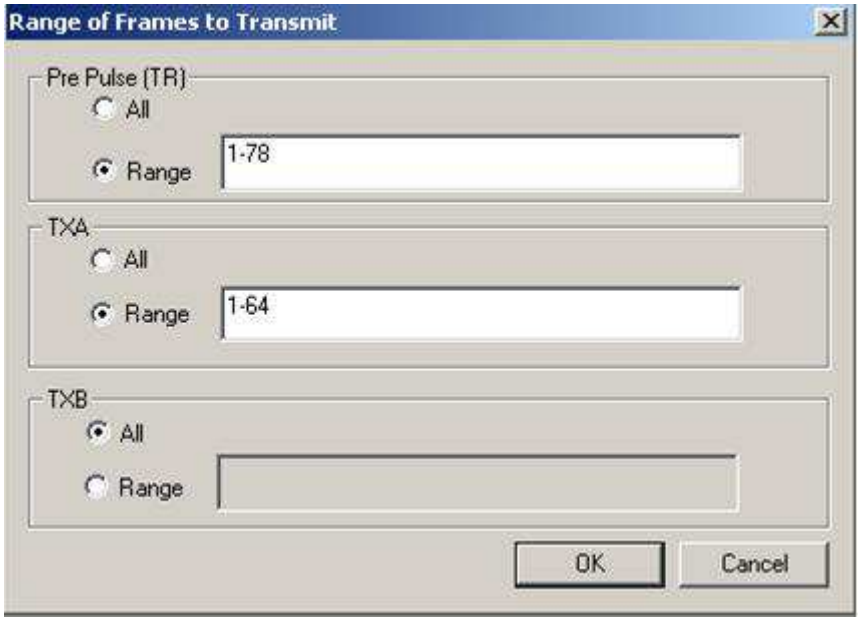

Figura 22 Selección de pulsos EEJ

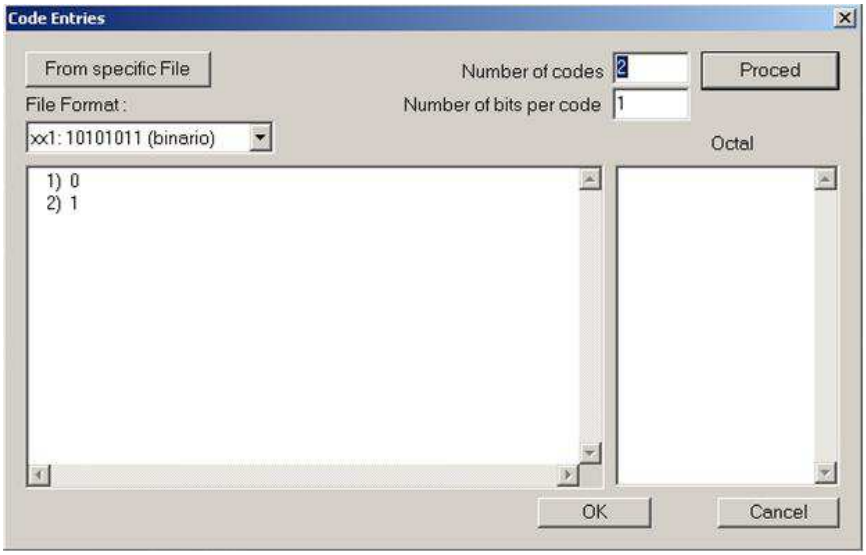

Figura 23 Configuración línea 4 EEJ

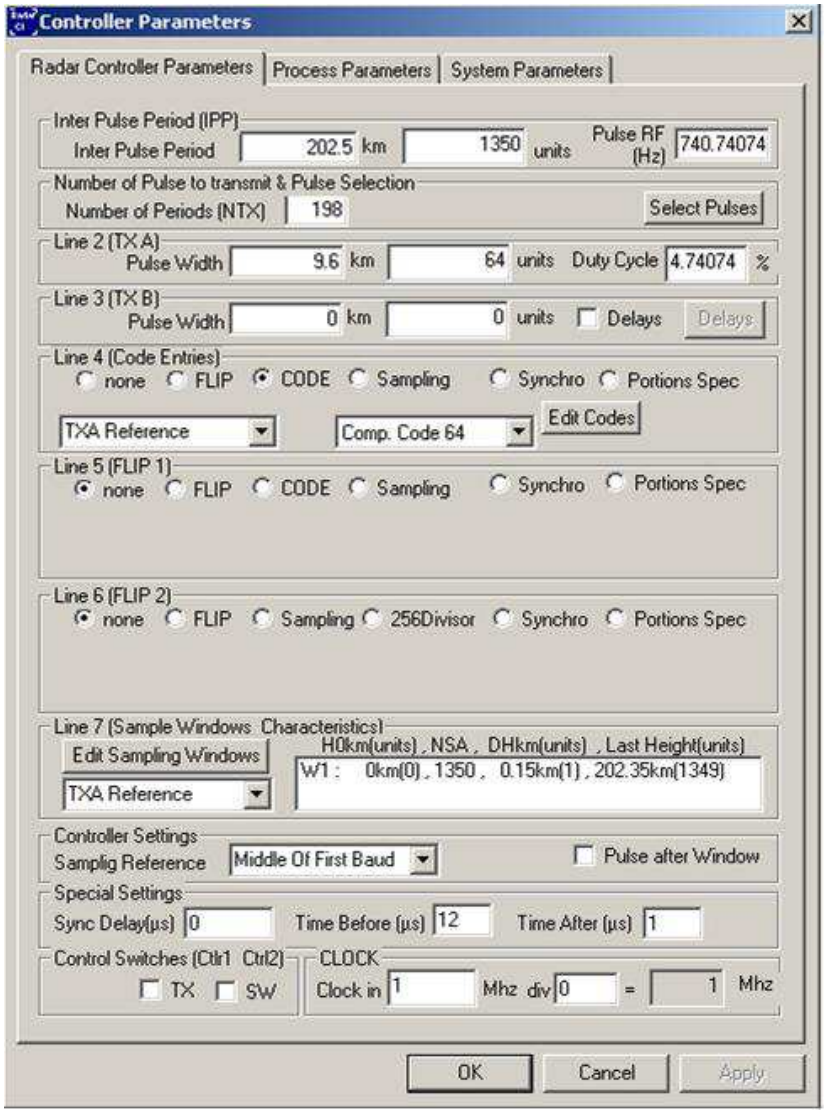

Figura 24 Experimento MST ISR EEJ

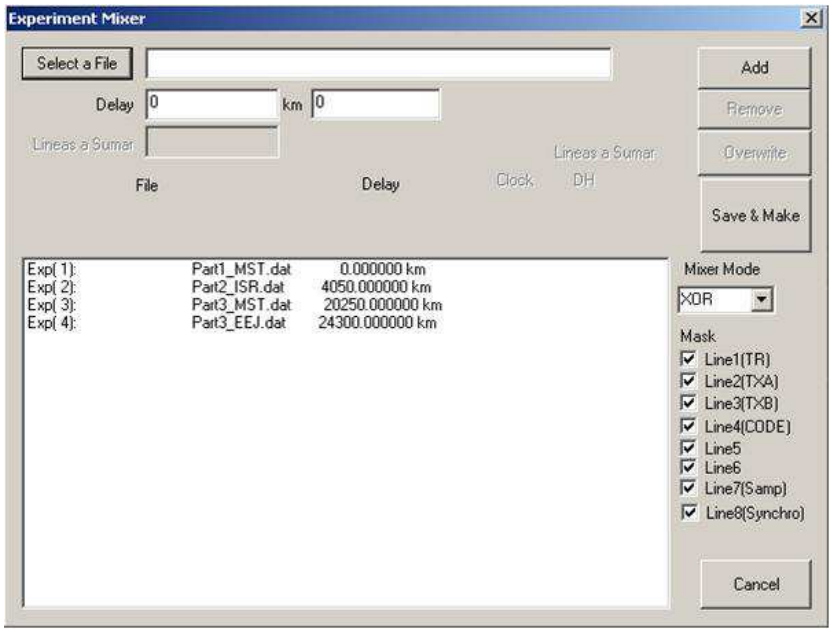

Figura 25 Combinación de experimentos