

## INGRID Cool Down Number 1: 1/11/1999 MUX Verification

Team Leader: pcm

Discipline	Major Components Needed
Optics	None
Detector	MUX
Mechanical	INGRID but without the camera barrel
Cryogenics	LN <sub>2</sub> and CCC
Software	ISP and EPICS control
Science	None

Cryostat / Discipline	Optics	Detector	Mechanical	Cryogenics	Software	Science
Pre-cooling		<ul style="list-style-type: none"> <li>Tests 1-5 of pcm's test document</li> </ul>	<ul style="list-style-type: none"> <li>Drive all four mechanisms</li> <li>Log motor profiles</li> </ul>	<ul style="list-style-type: none"> <li>Log pressure</li> <li>Log temperature</li> </ul>	<ul style="list-style-type: none"> <li>Test mechanisms</li> <li>Test ISP</li> </ul>	
Cooling		<ul style="list-style-type: none"> <li>Tests 6-9 of pcm's test document</li> </ul>		<ul style="list-style-type: none"> <li>Log pressure</li> <li>Log temperature</li> </ul>		
Cold		<ul style="list-style-type: none"> <li>Tests 10-19 of pcm's test document</li> </ul>	<ul style="list-style-type: none"> <li>Drive all four mechanisms</li> <li>Log motor profiles</li> </ul>	<ul style="list-style-type: none"> <li>Log pressure</li> <li>Log temperature</li> <li>Check outgassing rate</li> <li>Confirm operation of CCC</li> <li>Measure hold time of the LN<sub>2</sub> tank</li> </ul>	<ul style="list-style-type: none"> <li>Test mechanisms</li> <li>Test ISP</li> <li>Acquire data</li> </ul>	
Warming		<ul style="list-style-type: none"> <li>Tests 20-21 of pcm's test document</li> </ul>		<ul style="list-style-type: none"> <li>Log pressure</li> <li>Log temperature</li> </ul>		
Post-cooling		<ul style="list-style-type: none"> <li>Tests 22-23 of pcm's test document</li> </ul>	<ul style="list-style-type: none"> <li>Drive all four mechanisms</li> <li>Log motor profiles</li> <li>Make visual inspection of worms</li> </ul>	<ul style="list-style-type: none"> <li>Log pressure</li> <li>Log temperature</li> </ul>		

## Schedule of Cool Down Number 1

Day / Date	Operation	Comments
Friday 29/10/1999	Setup of INGRID	pcm to lead
Saturday 30/10/1999	Pre	
Sunday 31/10/1999	Pre	
Monday 1/11/1999	Pre	Public holiday
Tuesday 2/11/1999	Cool down	
Wednesday 3/11/1999	Cold	
Thursday 4/11/1999	Cold	
Friday 5/11/1999	Cold or warm up	