

# Installation of ARGOS dichroic interfaces

Left side - 29 Nov 2011

Raffaele Tomelleri, Giovanni Negrini, Lorenzo Busoni, Rick Hansen, Bruce Bingham, Chris

# Let's start: setup the platform



We finally decided to leave the wood as in this picture

**Local time**

8.28AM

**Elapsed**

0

# Platform installation



Platform is ready,  
M2 and LBC deployed,  
M3 out

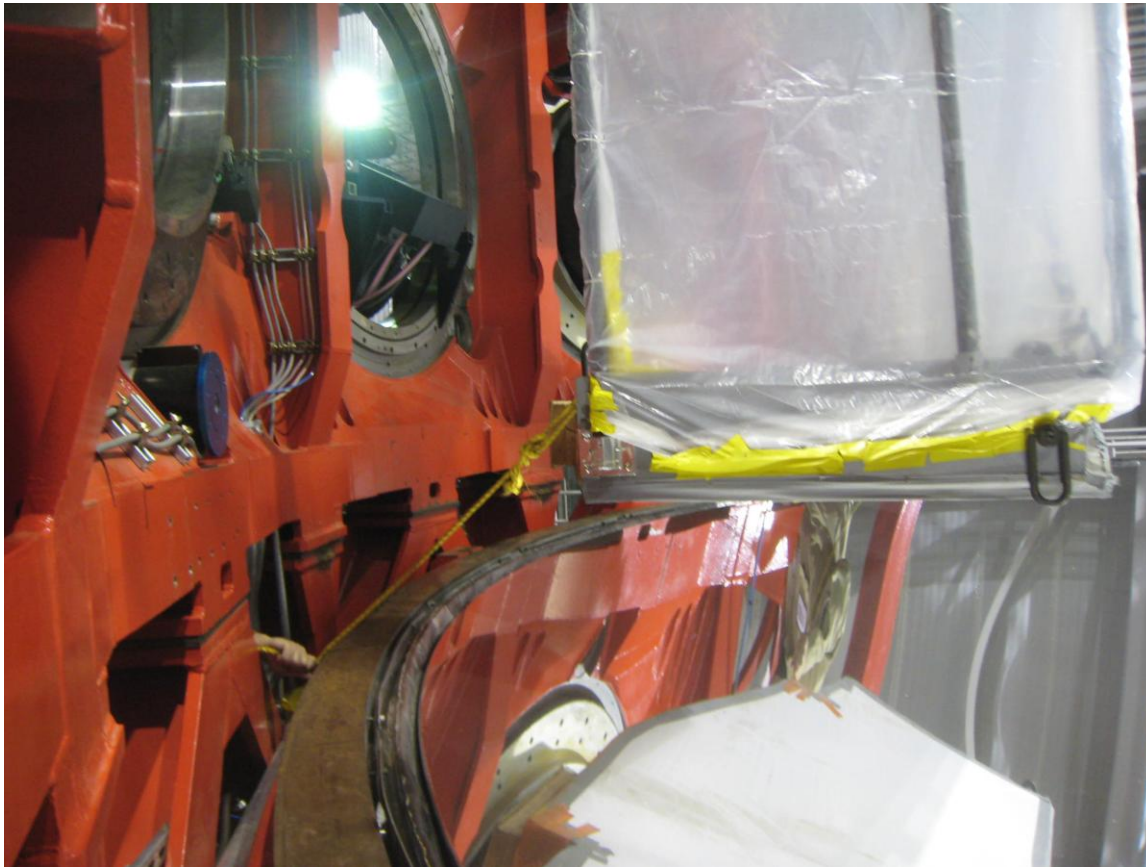
**Local time**

9.00AM

**Elapsed**

0.32

# Platform installation (2)



Platform flies over M1  
Ropes used to prevent  
oscillations

**Local time**

9.10AM

**Elapsed**

0.42



# Platform installation (3)



Platform in position.  
Wood is in contact with  
the horizontal beam at the  
submm focal station, as  
close as possible to the  
treehouse door.

**Local time**

9.16AM

**Elapsed**

0.48

# Platform installation (4)



Platform is pushed against the rotator structure using straps

**Local time**

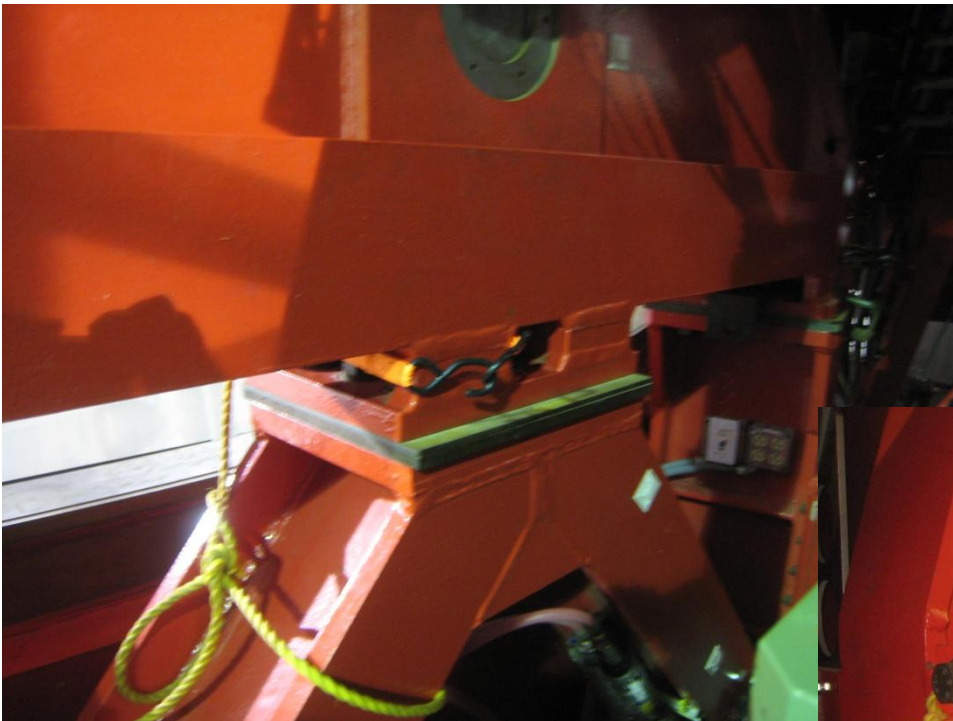
9.25AM

**Elapsed**

0.57

# Platform installation (5)

1st strap is fixed below LBTI  
2nd strap is fixed at submm focal station



**Local time**

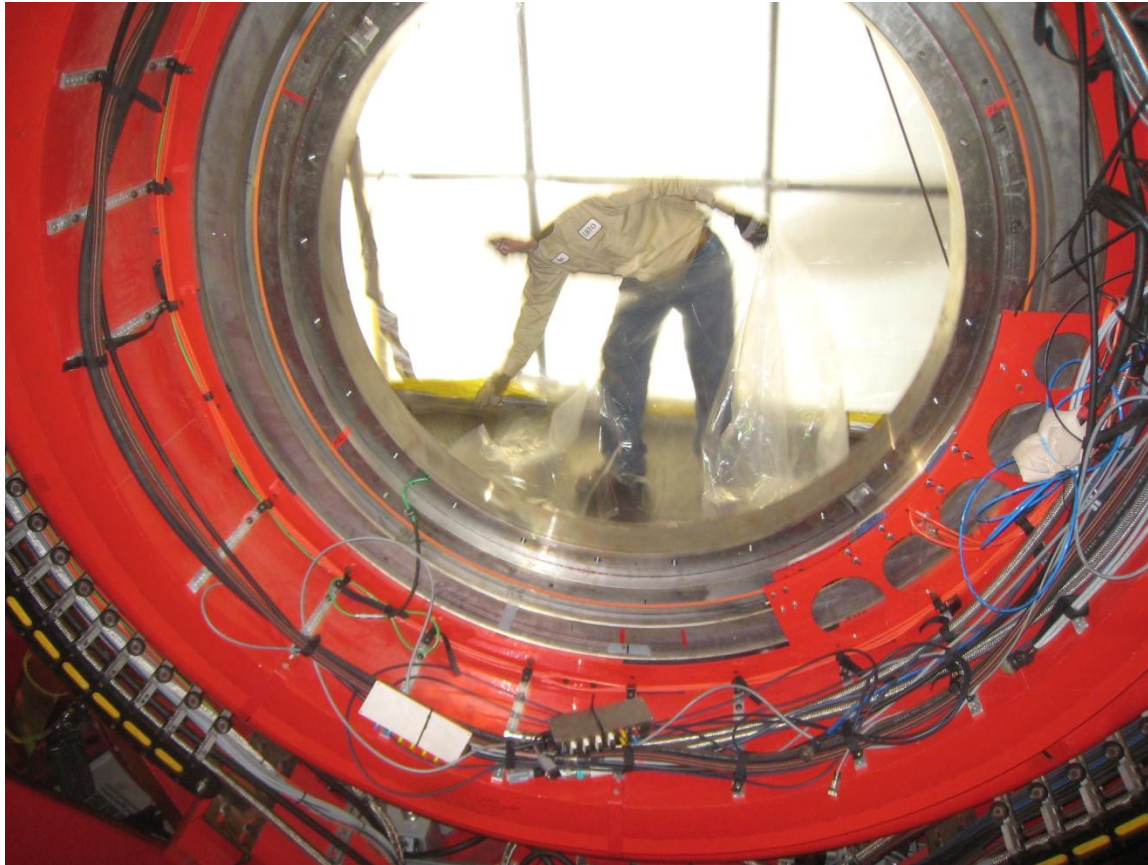
9.25AM

**Elapsed**

0.57



# Platform installation (6)



Plastic is installed to secure the gap between the platform and the rotator structure

**Local time**

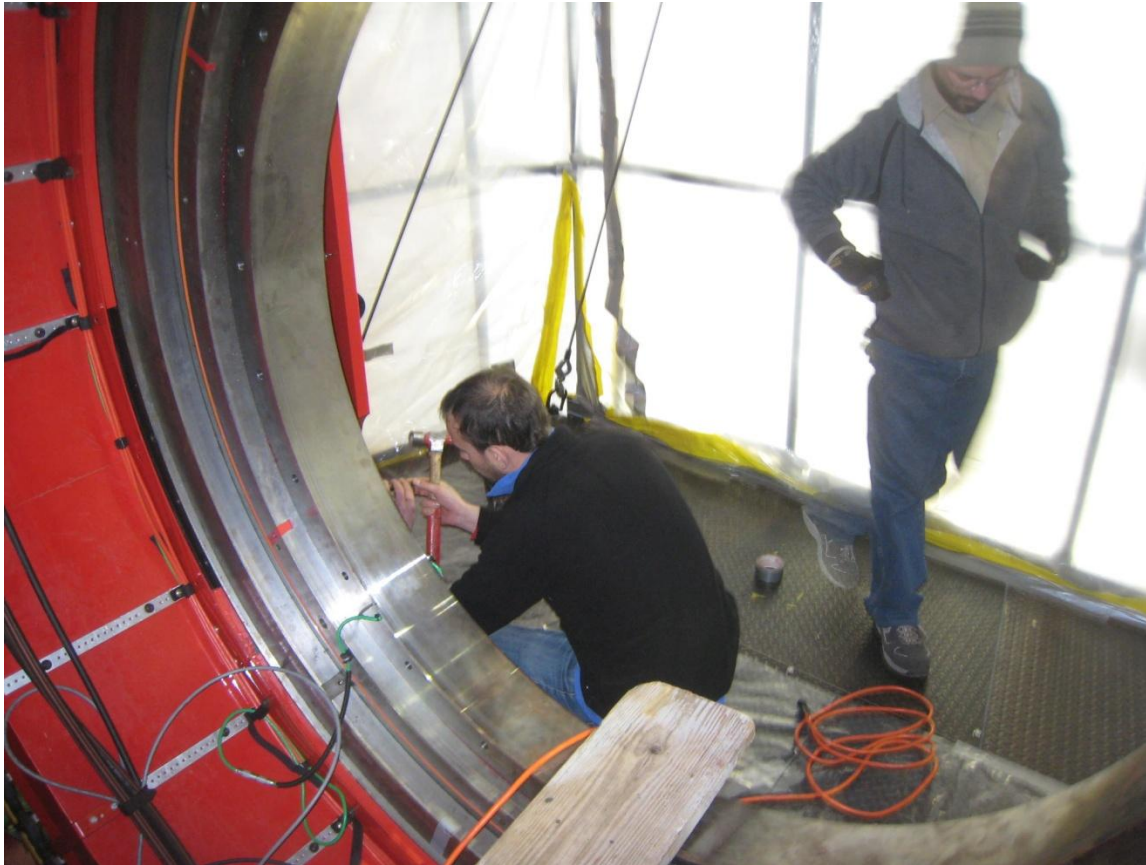
9.31AM

**Elapsed**

1.03



# Support arm installation



Giovanni Negrini punches the 4 holes of the support arm using the drill jig



**Local time**

9.48AM

**Elapsed**

1.20

# Support arm installation (2)



The 4 M12 through-holes for the support arm are drilled

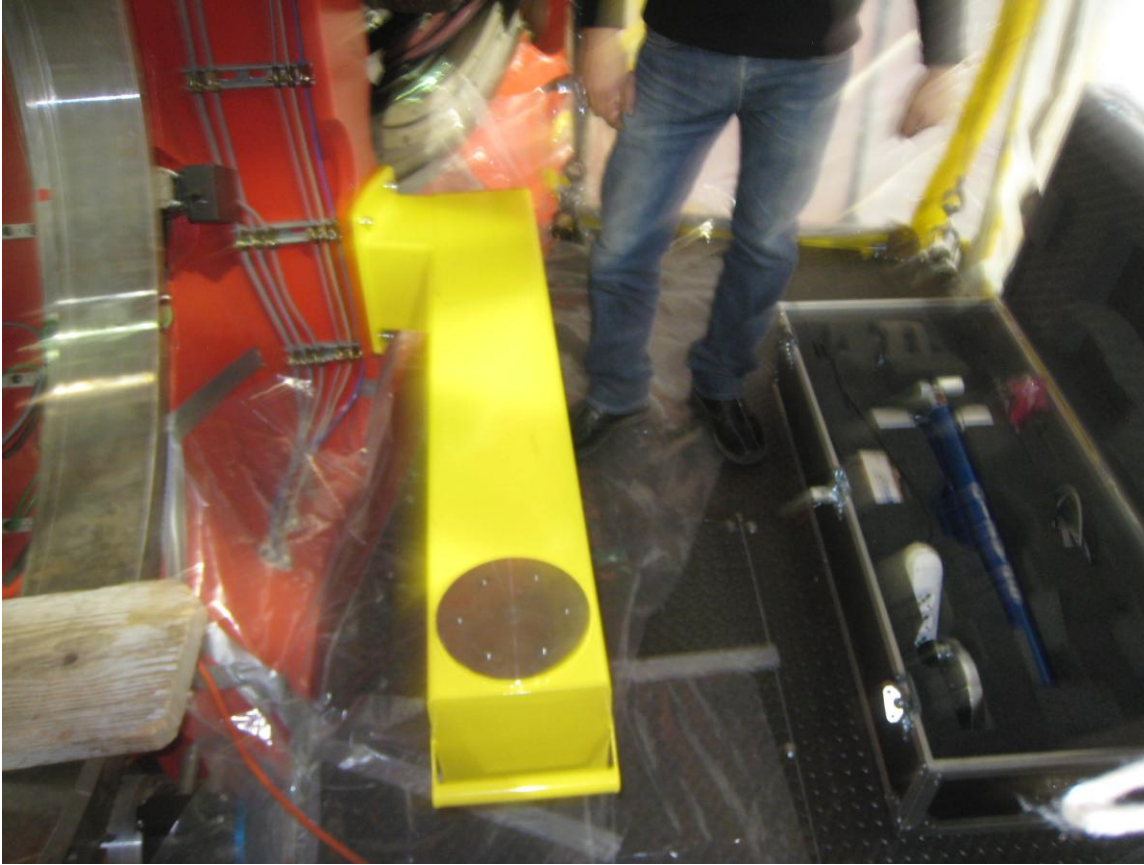
**Local time**

10.23AM

**Elapsed**

1.55

# Support arm installation (3)



The support arm is bolted to the structure

**Local time**

**Elapsed**

10.46AM

2.18



# Placing interfaces jigs



The SPAZIO arm is bolted to the support arm.  
A reference system centered at the intersection  
between the rotator axis and the rotator flange  
is acquired (below, 11.00AM, 2.32)



**Local time**

**Elapsed**

10.48AM

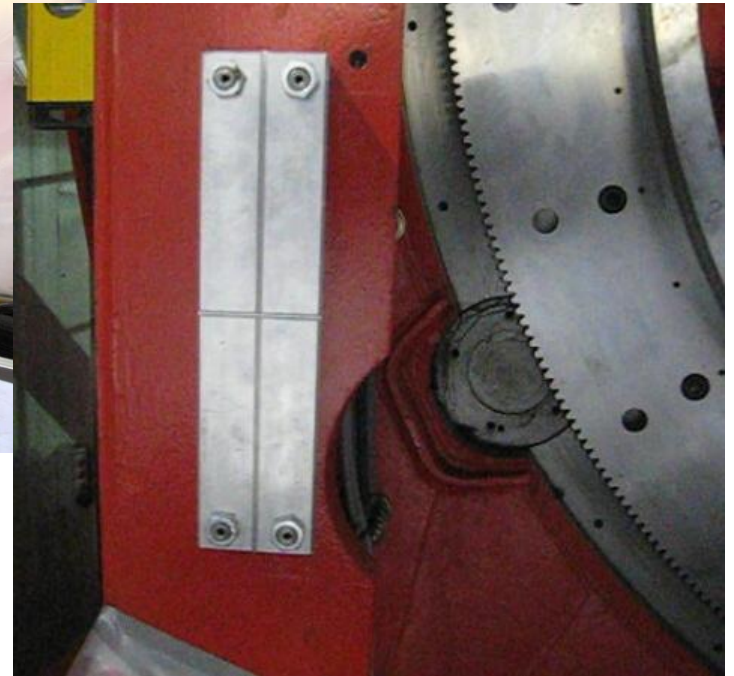
2.20



## Placing interfaces jigs (2)



The 2 magnetic jigs have been accurately positioned on the vertical beams and clamped.



**Local time**

10.38AM

**Elapsed**

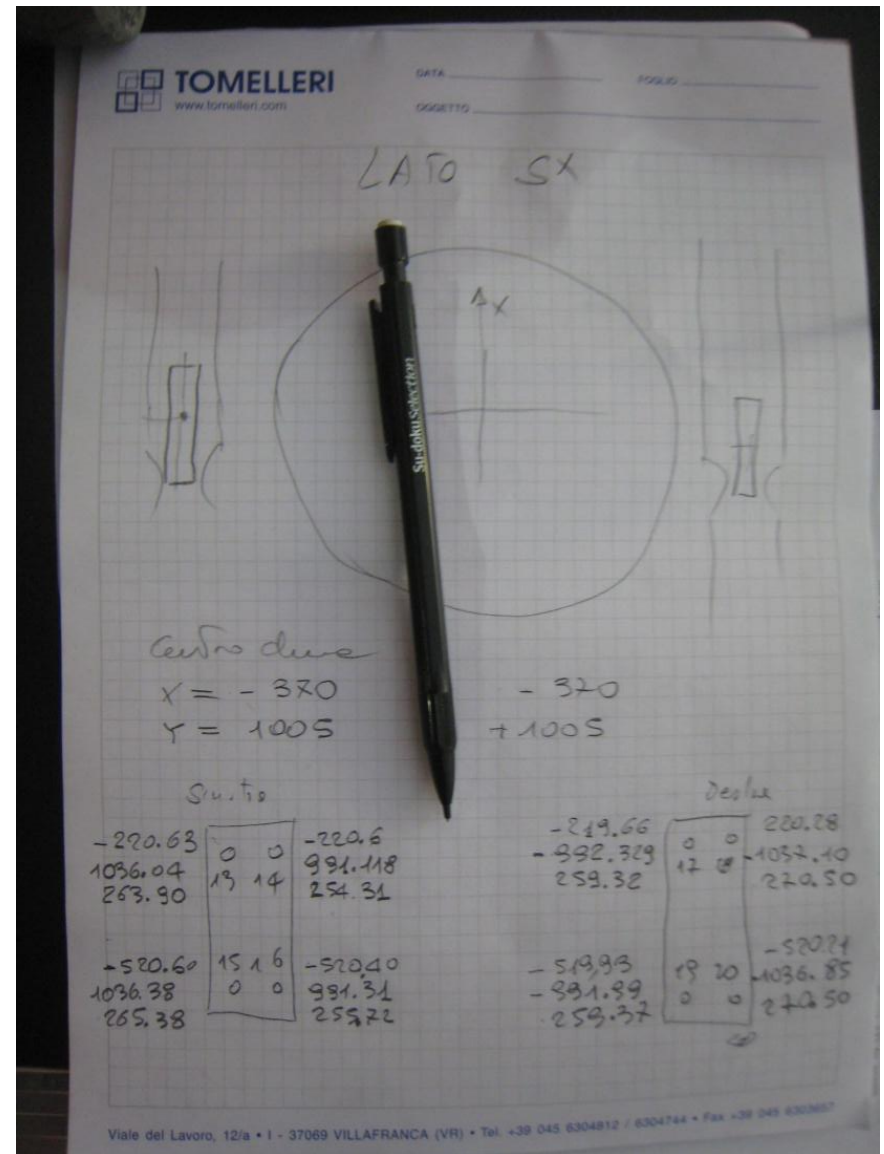
3.10

# Placing interfaces jigs (3)

Using the jigs, 5mm holes are drilled.

The position of the holes is measured (in the reference system previously determined).

The picture on the shows a summary of the measurements.



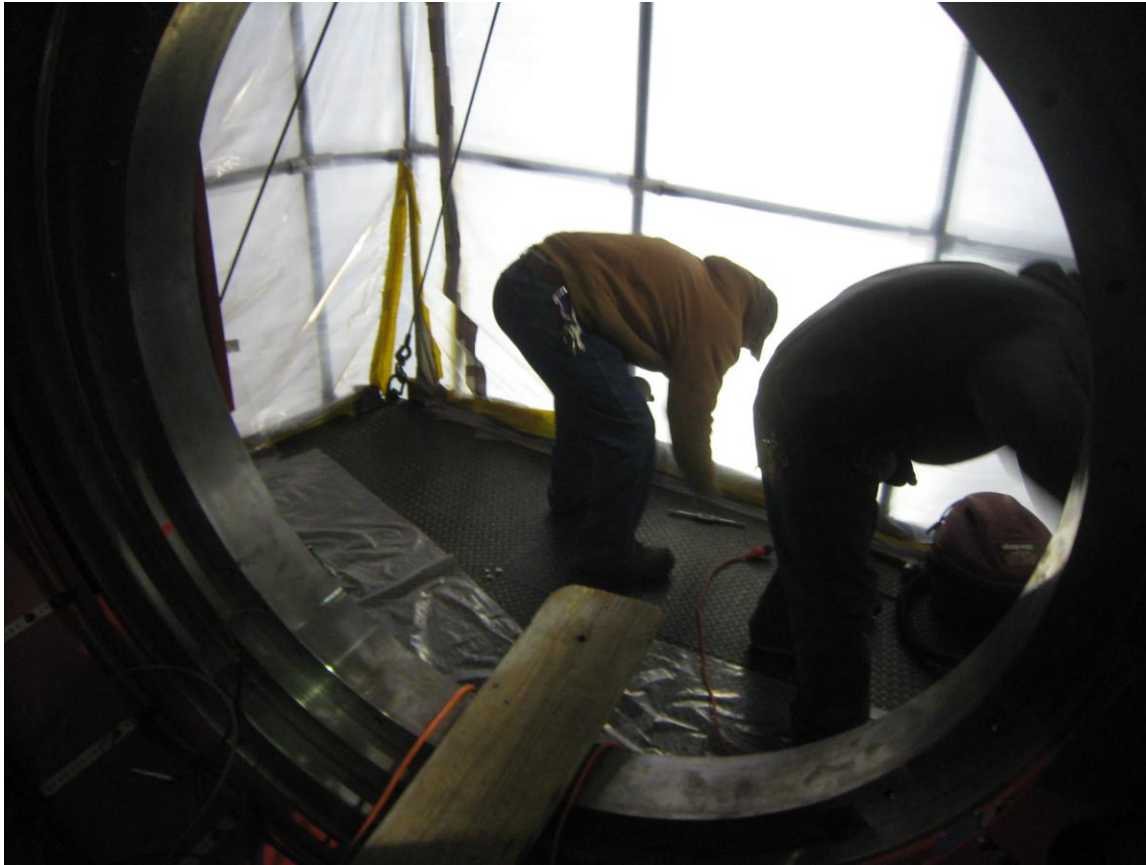
**Local time**

**Elapsed**

12.30PM

4.02

# Fixing Interfaces



Drill holes to install the interfaces. 8.5mm 20mm-deep holes, to be tapped 15mm-deep for M10 bolts.  
4 holes on each interface

**Local time**

12.48PM

**Elapsed**

4.20



## Fixing Interfaces (2)



Tapping on the right while  
drilling on the left

**Local time**

**Elapsed**

01.00PM

4.32



# Fixing Interfaces (3)



Finish tapping on the left

**Local time**

1.16PM

**Elapsed**

4.48

# Ready to go!



Interfaces are bolted.  
Tools removed from the  
telescope, platform removed  
(starting at 1.46PM, 5.18)

Local time	Elapsed
1.33PM	5.05



