

# Activities of the Equipment Group



## Public Observatory of Überlingen (in a small town at the lake of Konstanz)

Founded 60 years ago by electrician Bruno Müller.

After his retreat due to his old age (86 years) in 1993, the public guided tours through to the sky have been continued by a non-profit association specifically founded for this purpose.

Actual we have a total number of 18 members, with 10 members active with the maintenance of the equipment and with members active operating the public tours.



# Activities of the Equipment Group



## Project: Schiefspiegler 300/6000

**Designer of this telescope:**

Anton Kutter (Biberach/Riß)

**Manufacturer of the optical parts:**

Dieter Lichtenknecker (Weil der Stadt)

**Rebuild of the telescope:**

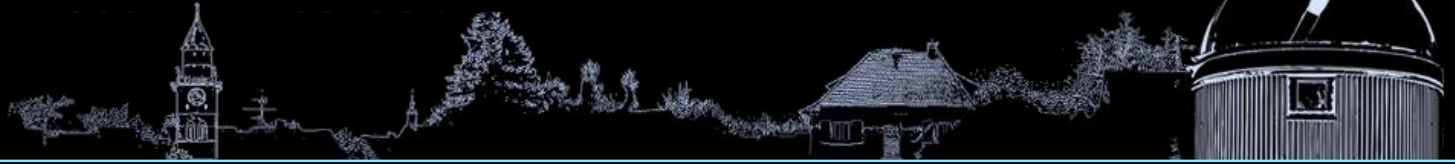
with support by  
and

Thomas and Mathias Sautter

Hans-Ludwig Reischmann

Johannes Hildebrandt

# Activities of the Equipment Group



In former times this telescope has been used by the Observatory of Laupheim



# Activities of the Equipment Group



In the summer of 2015 this instrument, no longer used for several years, was in quite a sad condition:



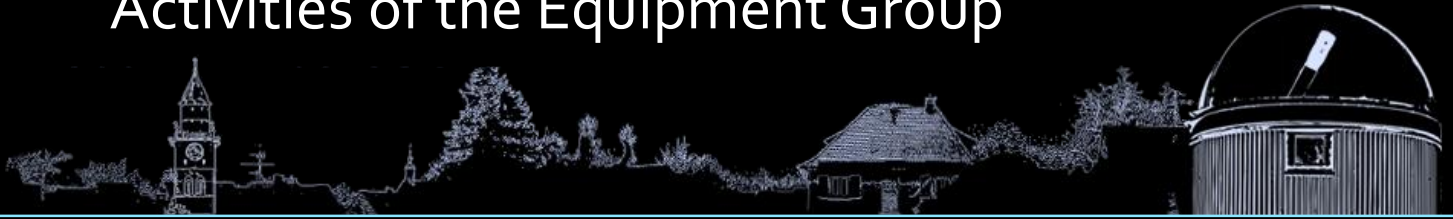
And by mere luck it was found by Johannes and me

# Activities of the Equipment Group



On the 14th of November after some discussion and negotiating, we drove to Laupheim to acquire the remaining parts for this "Schifspiegler".

# Activities of the Equipment Group



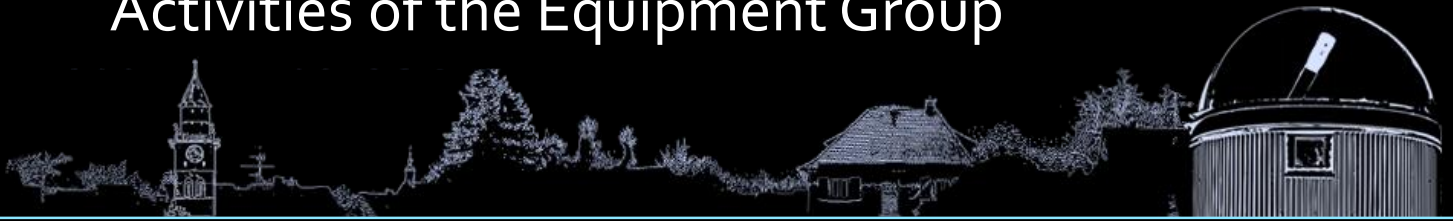
The old one:



and...



# Activities of the Equipment Group



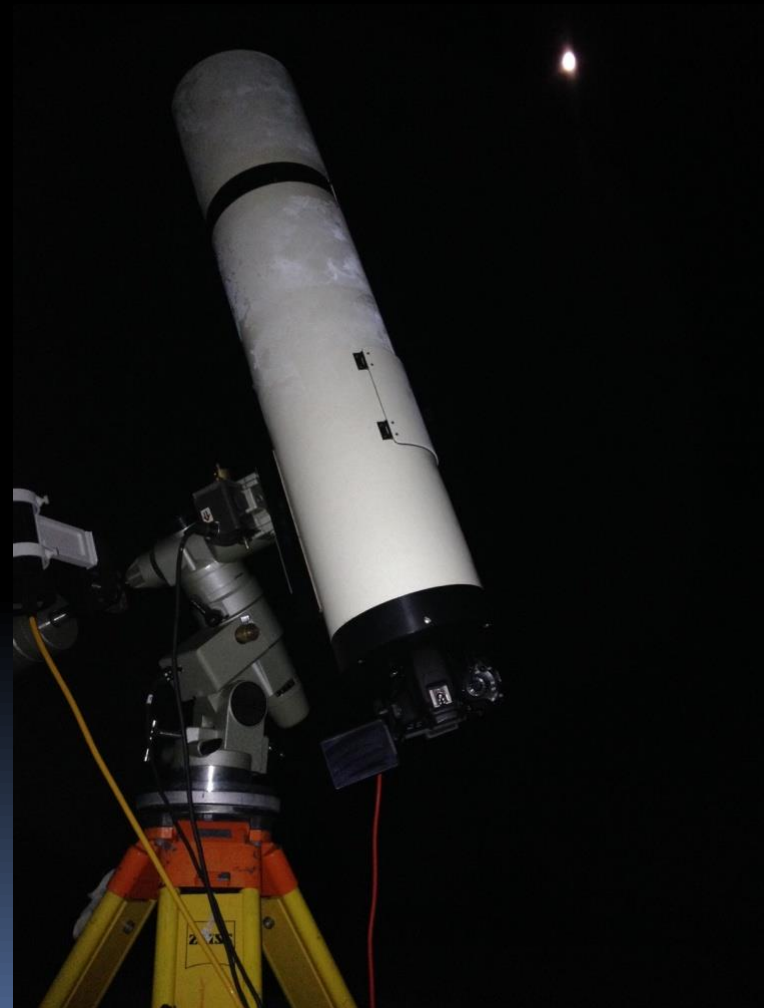
We could also acquire some additional, optical equipment as supporting parts of the old „Schiefspiegler“ and also an **Lichtenknecker FFC Camera** .



# Activities of the Equipment Group

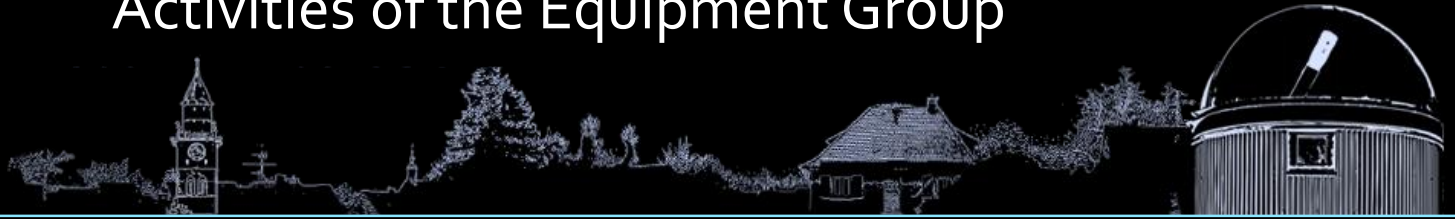


Without any delay the  
**Lichtenknecker FFC Camera**  
was used for  
astronomical imaging  
by Johannes

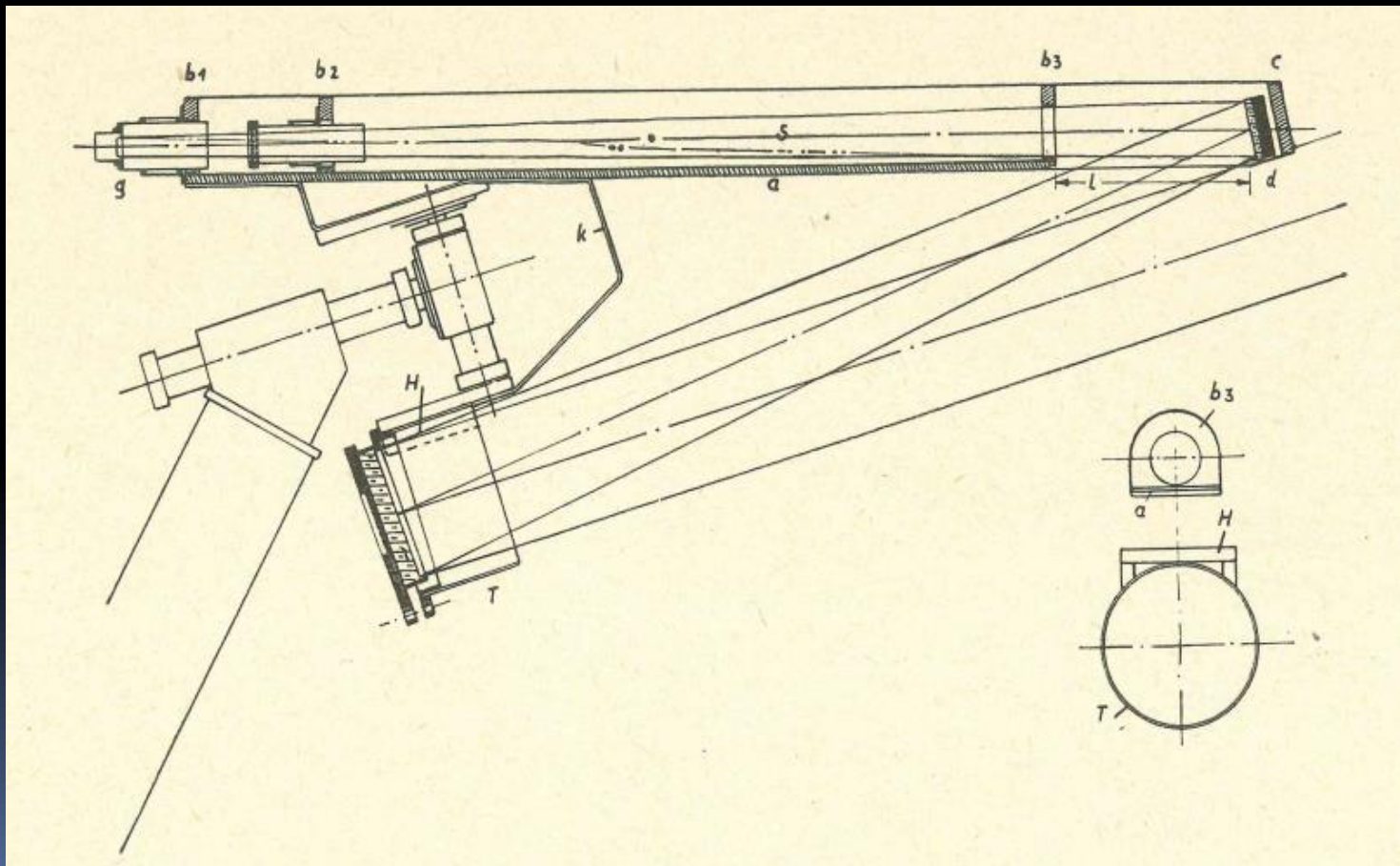




# Activities of the Equipment Group



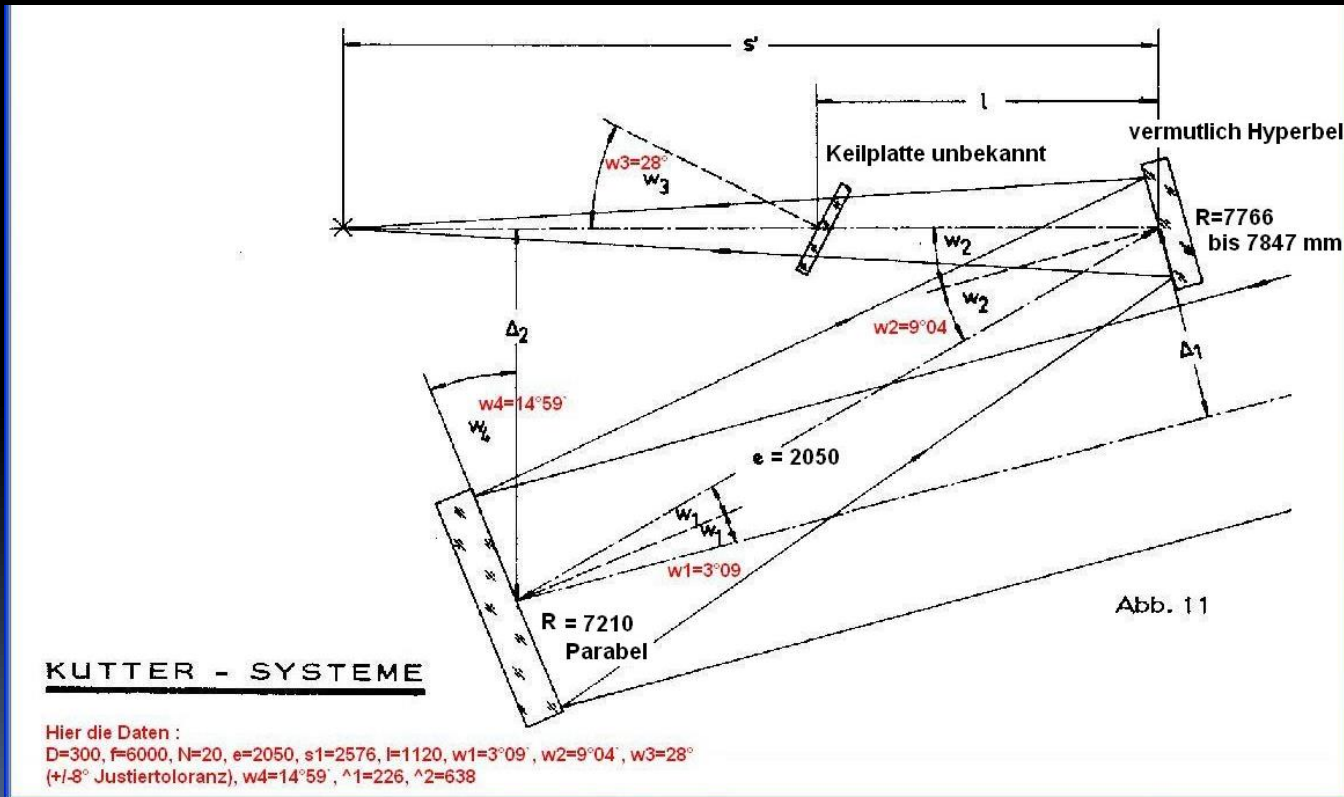
Basic design-engineering for this project:



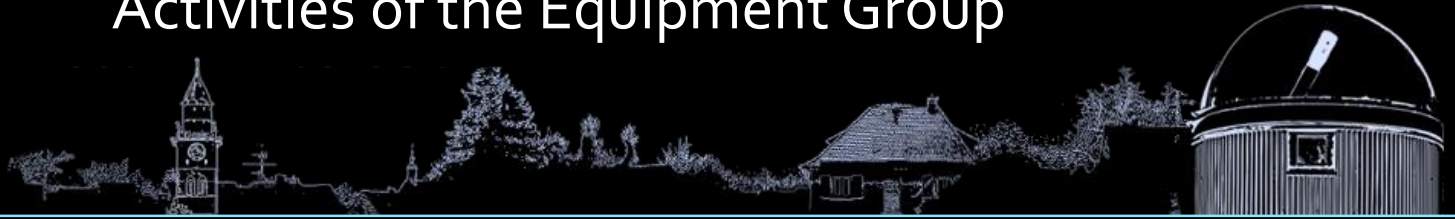
# Activities of the Equipment Group



We could use the real optical parameters, based on optical tests carried out by Wolfgang Rohr



# Activities of the Equipment Group



In the mean a new telescope took forme



3" Focuser



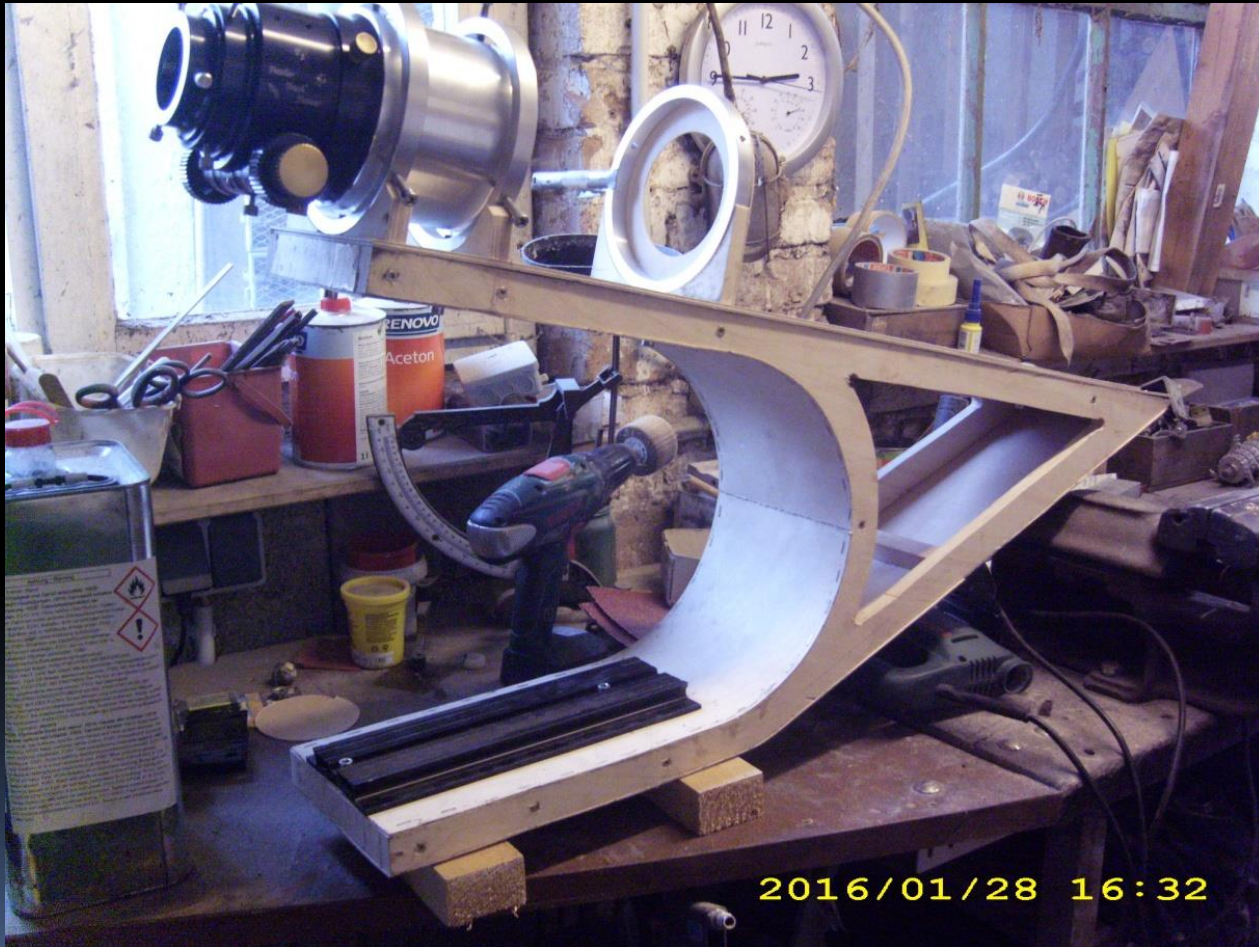
Tube for main mirror



# Activities of the Equipment Group

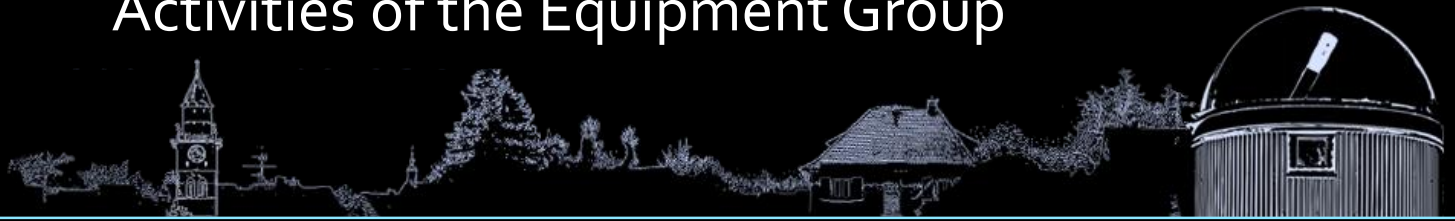


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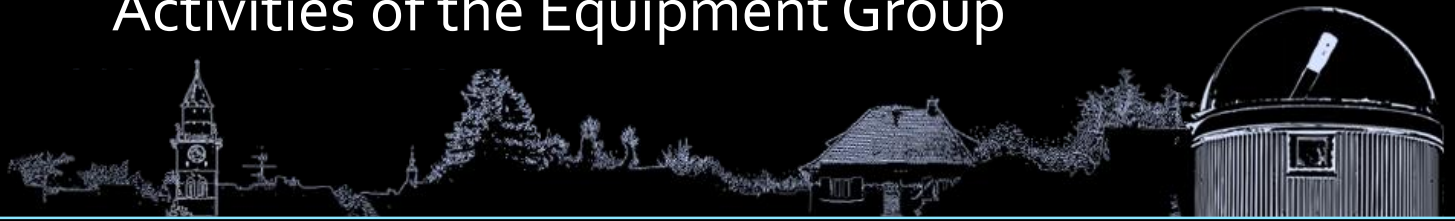




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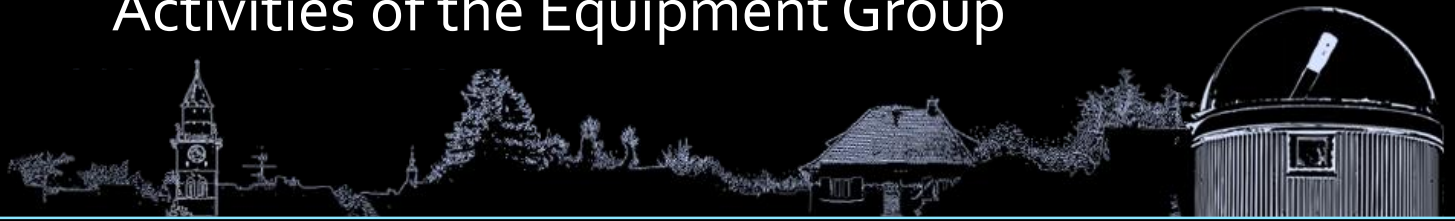
# Activities of the Equipment Group



Tube for the  
main mirror  
with cover



# Activities of the Equipment Group



Preparation work for the new drive unit for the right ascension axis.



The drive unit formerly used for the right ascension axis is now used for the declination axis



# Activities of the Equipment Group



The declination axis has been inserted into the structure

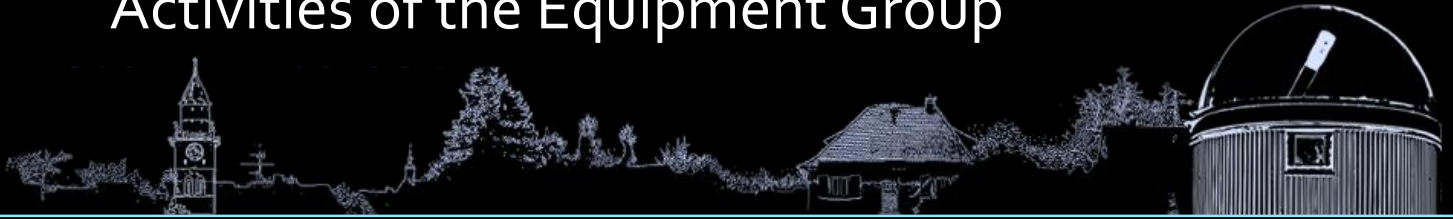


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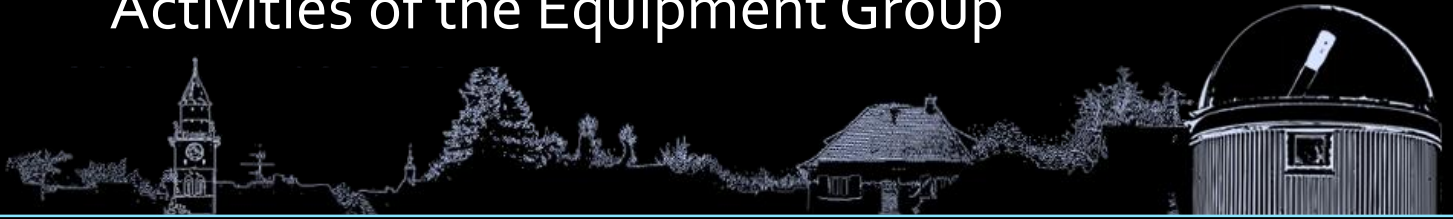




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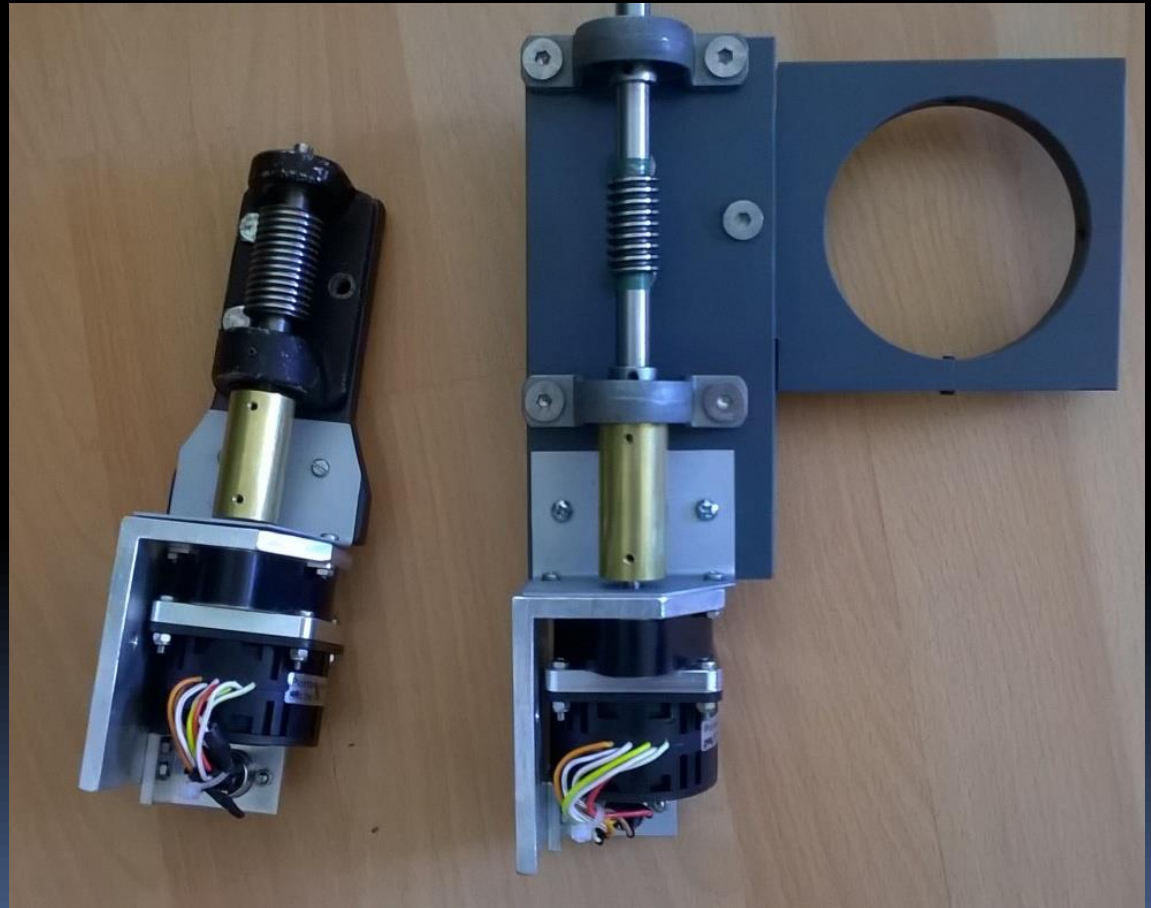




# Activities of the Equipment Group



The drive units for  
right ascension  
and declination



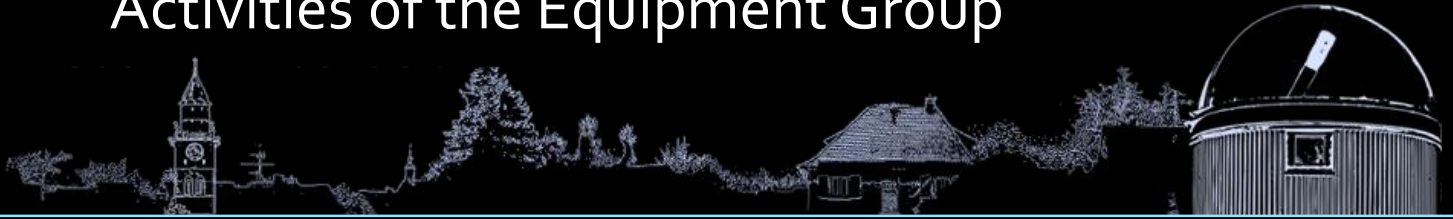
# Activities of the Equipment Group



After the summer break work continues with the front part of the structure and the tube for the secondary mirror



# Activities of the Equipment Group

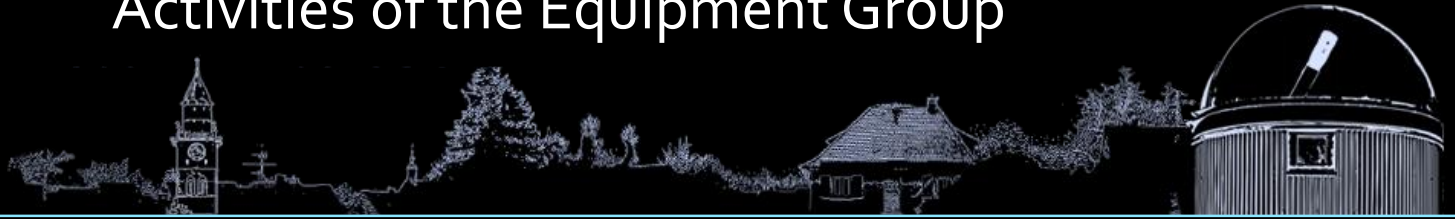


The drive units for both axis are integrated in the structure and the telescope is moveable in both axis without any mechanical problems.





# Activities of the Equipment Group



The available accessories could be mounted using specifically realised adapters



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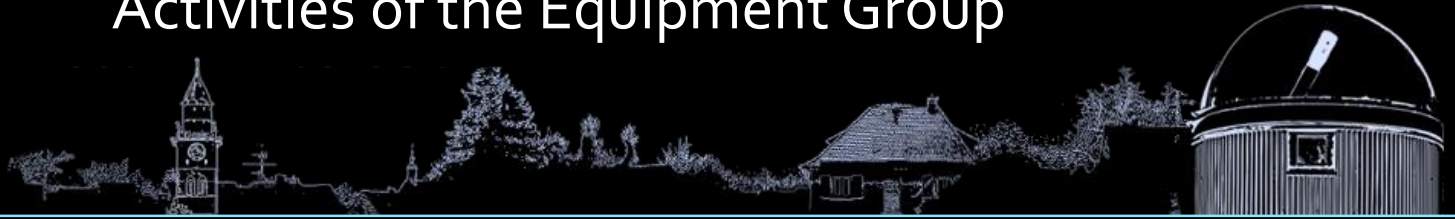


## New optical parts delivered from USA

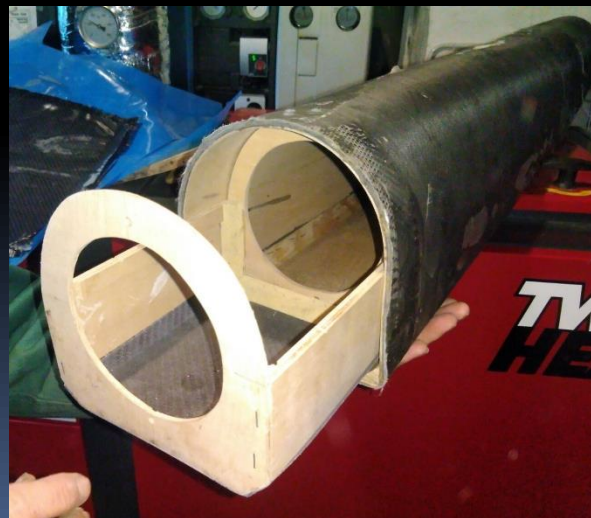


From Harry Siebert, who builds large parts for large telescopes

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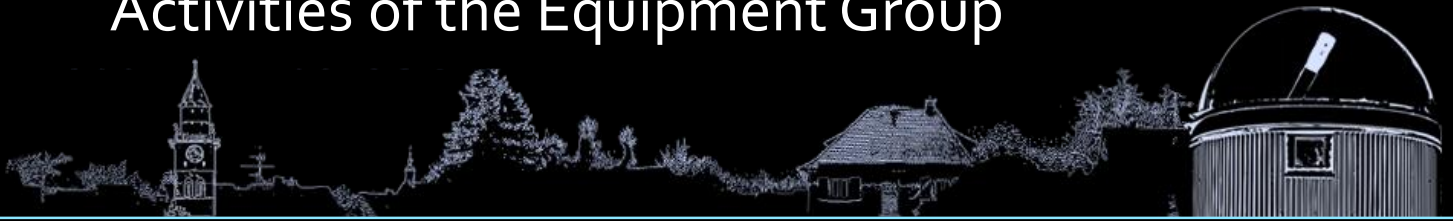


The correction lens and the corresponding fixture





# Activities of the Equipment Group



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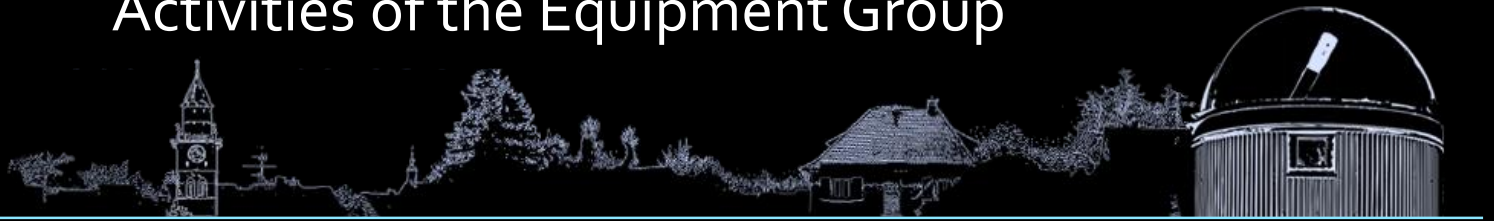


Connection  
between the front  
and the back part  
of the tube for the  
secondary mirror



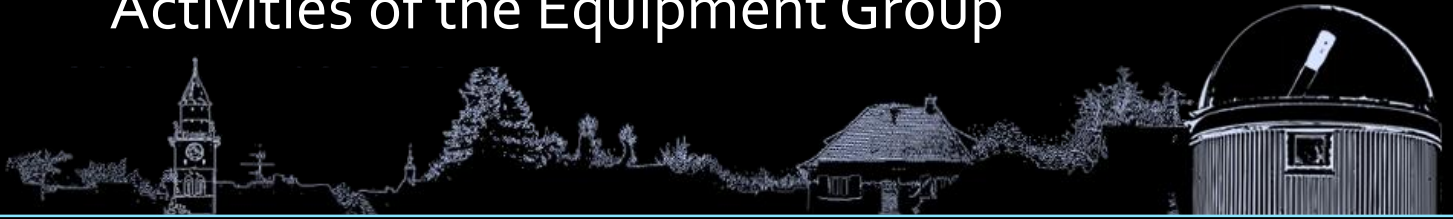


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The design of this telescope has still  
some possibilities for optimisation

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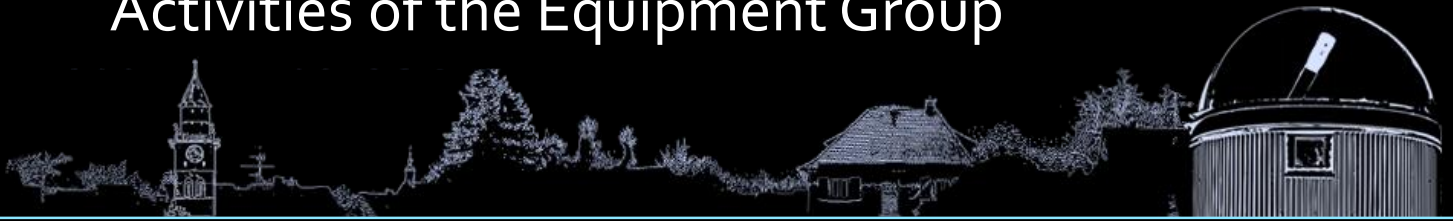


Ready for the  
First-Light...  
at 27.05.2017





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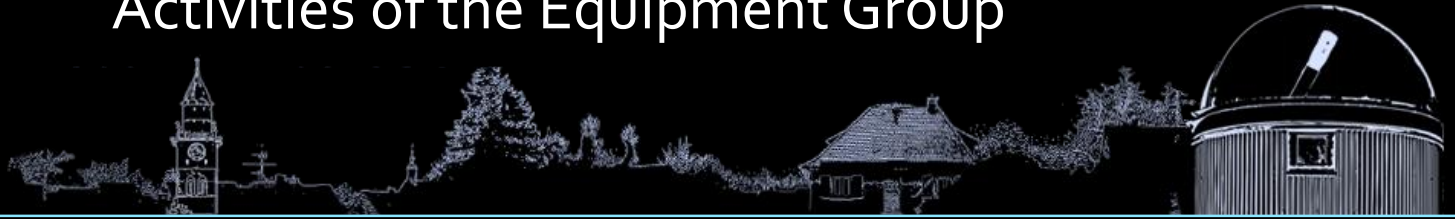


## A new guiding telescope



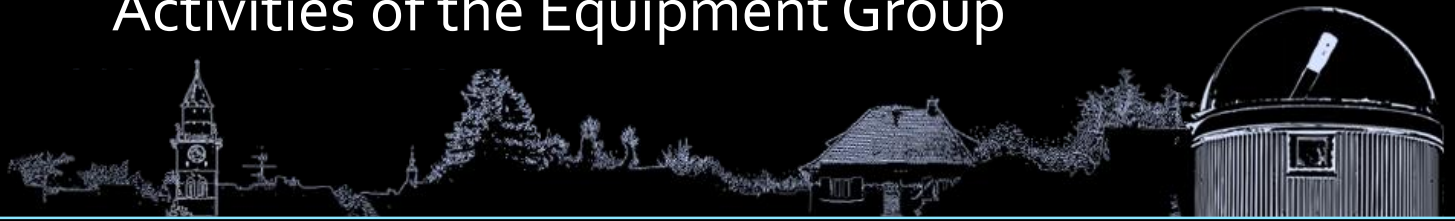


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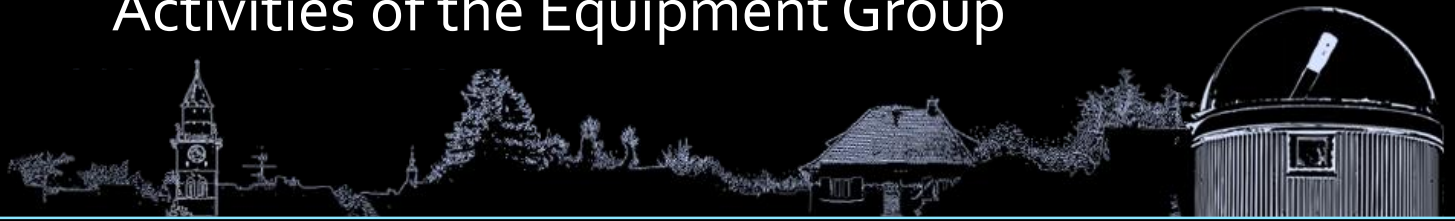


In October 2017  
the last tests  
could be performed.

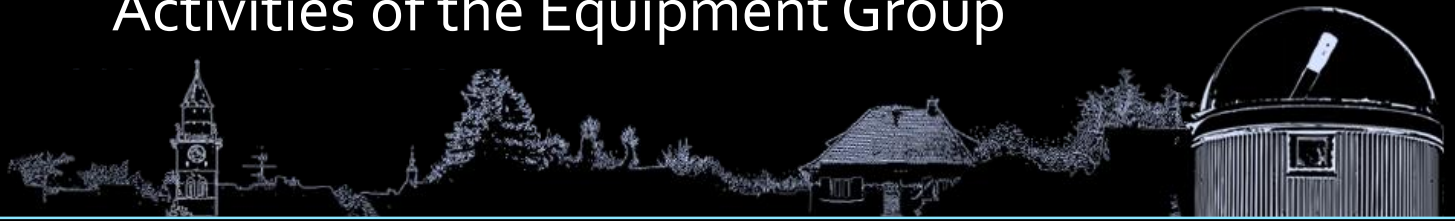
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# Activities of the Equipment Group



And on November 4th 2017 we  
at the Observvatory of Überlingen  
had our „big day“:  
The Schiefspieger was moved to his  
new destination, Überlingen.



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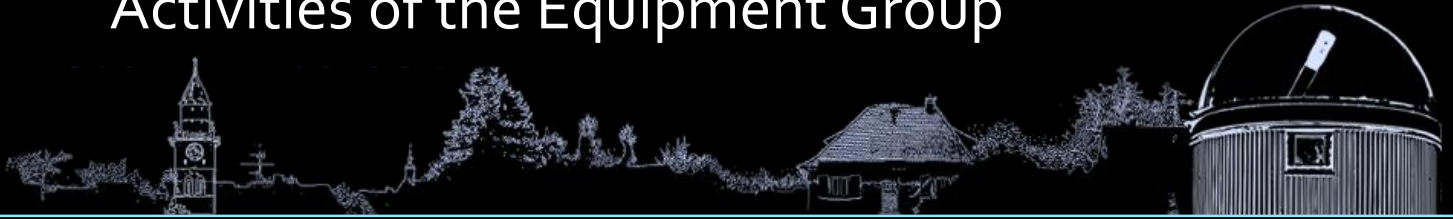


A car completely filled with only one telescope.





# Activities of the Equipment Group





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Thank you for  
your attention.

