SVOM Follow-up

Introduction

A priority identified at the very beginning of SVOM.

Many science cases. Two extremely important for the CP:
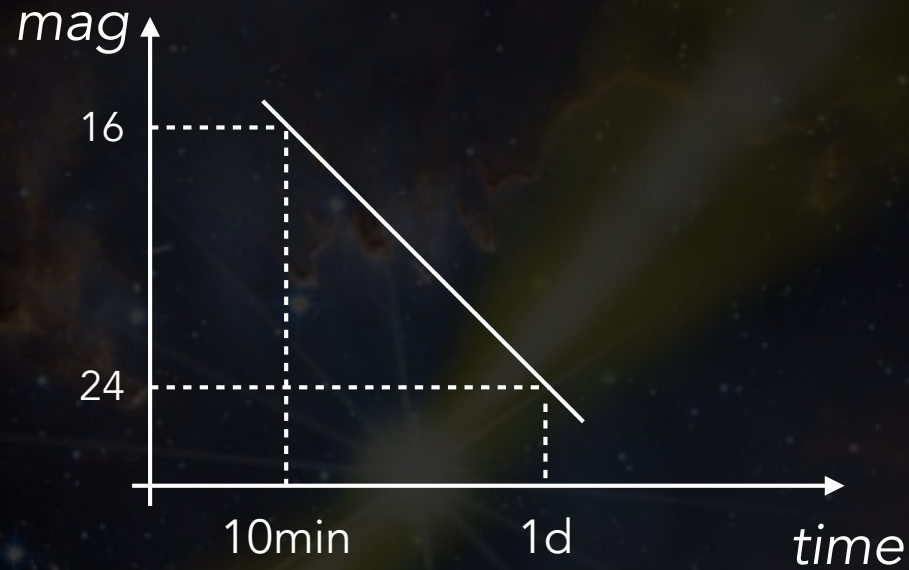- Afterglow localization.
- Redshift determination.

Our strategy:
- Relying on scientific/technical teams that are well recognized in the field of transient sky: an efficient way to reinforce our scientific expertise.
- Associate large telescopes (> 1m) to complete the Chinese coverage.
- And above all, access to spectroscopy!

Since the beginning, we have targeted very precise facilities to avoid dispersion: facilities/scientists that will have a real impact.

Large telescopes
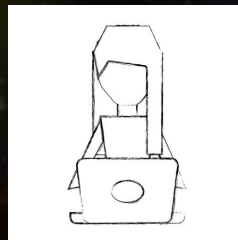
Need: Rapidity + small & large telescopes

SVOM Alert

RRM or robotic (few minutes)

Observations

Sec

ToO (hours)

What is currently being said?

From the SVOM Science Management Plan

2.4 SVOM Follow-up system (Jianyan)

The scientific return of SVOM strongly dependents on follow-up observations. SVOM follow-up system will be composed of a set of telescopes:

• SVOM dedicated follow-up instruments, which are VT, MXT, two GFTs, and GWAC.

• Telescopes with guaranteed time, such as LCOGT 1-meter network telescopes, Xinglong 2.16-meter, Lijiang 2.4-meter, and TAROT, to follow-up SVOM alerts with guaranteed time belong to SVOM teams.

• Telescopes with applied time, such as CFHT, VLT, to follow-up SVOM alerts with time applied by SVOM teams.

• Telescopes with bought time, such as LCOGT 2-meter network telescopes, UKIRT, which are able to follow-up SVOM alerts with observation time bought by SVOM teams.

• Telescopes from SVOM partners, voluntary facilities who respond at their convenience to SVOM alerts.

Although SVOM has dedicated follow-up instruments, other follow-up telescopes are also great supplements. The near infrared telescopes are especially wanted for hunting high redshift or dusted GRBs.

High time to go in the details

The SVOM Science Management Plan was written in 2016 and is in fact not really precise: we now need to be much more specific.

The critical point remains the access right to the data: it is important to be hyper clear on this point, otherwise we are heading towards major difficulties...

Actions in progress

Implementation of shared documents via Redmine: https://forge.in2p3.fr/projects/grb-follow-up/wiki/Wiki
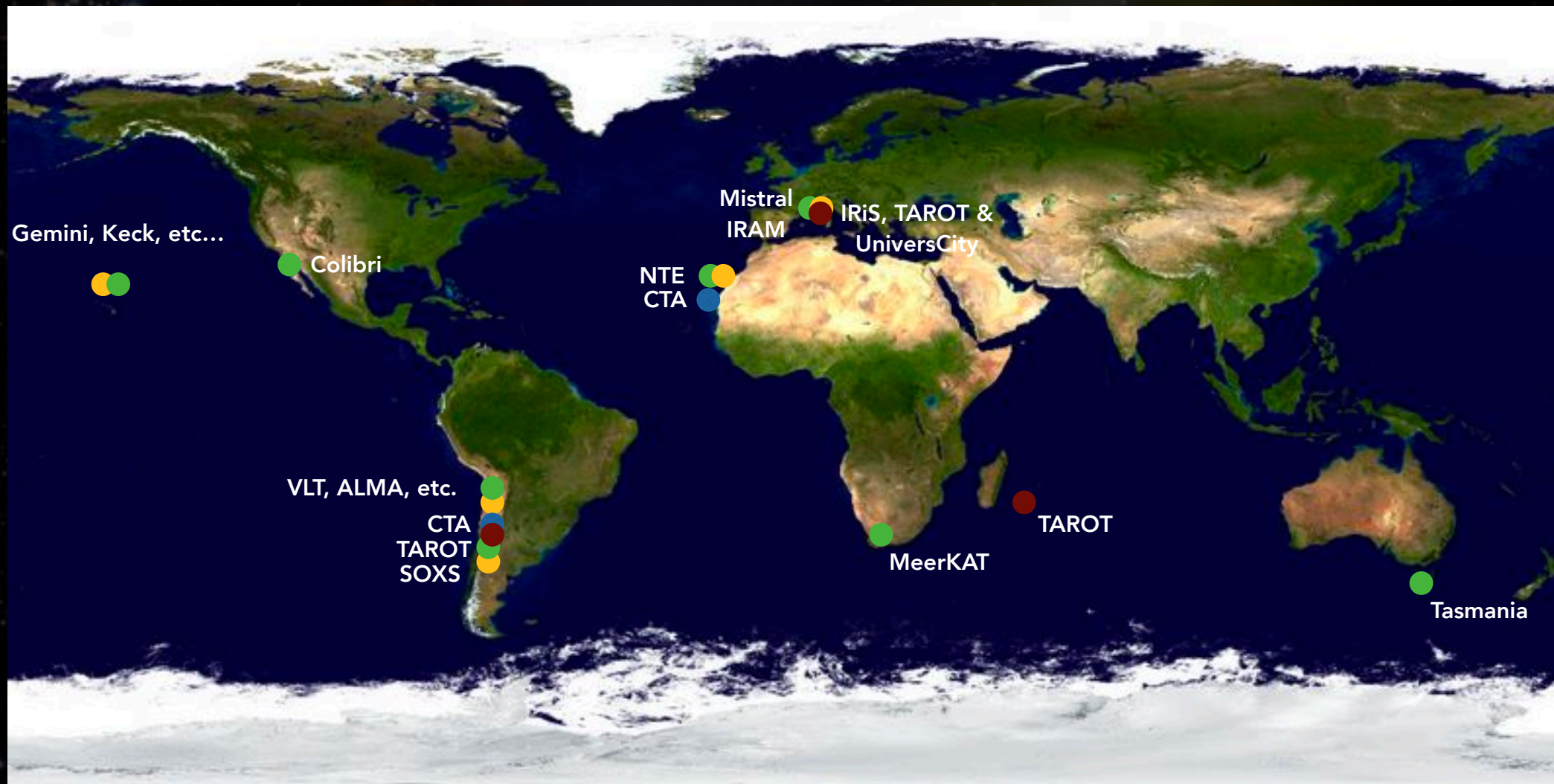

Setting-up of a chat system:

• Slack, Rocketchat or Mattermost (Arnaud's action).

• If you want to be involved, feel free to say so as long as you play an active role.

Work initiated with Susanna and Emeric.

Scan of the Redmine

The coverage

Preliminary conclusion

Actions to be conducted:
  - Continue to identify private facilities and see what can be done together: all suggestions are welcome.
  - For open-time facilities, it is high time to be active by participating in ongoing programs (like Stargate) or to propose our own (like Mistral).

Concerning the Redmine, still to be done for the next meeting:
  - Compute the global efficiency of the system (Damien D. has all the tools)
  - Interfaces with SVOM: VOEvent reception, collect of the data, etc.
  - Human ressources behind all these efforts: we must be sure to be numerous enough (and be careful not to announce non-existent time...).