



## SVOM Science User Support System

[🏠 SUSS HOME](#)[📅 NEWS](#)[❓ OBSERVING WITH SVOM](#)[❓ HELP](#)[ADMIN](#)[🔑 LOG](#)

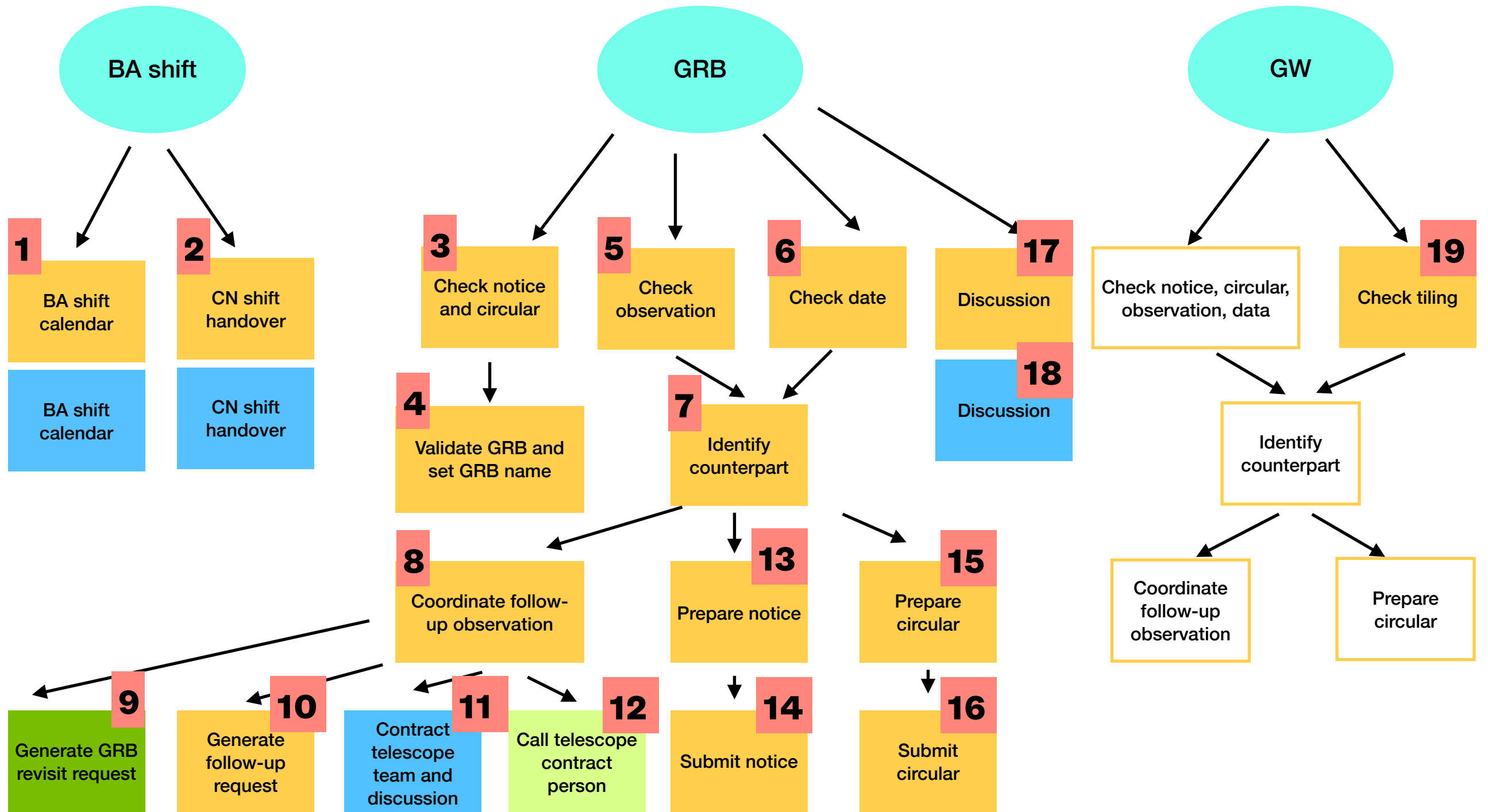
# CSC BA Tools Quick Guide (V2.4) for BA Training

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## About SVOM

Outside GRB observations, ToO observations, calibration observations, operational manoeuvres and SAA passages, SVOM instruments are available to science observations of astrophysical targets with the maximum efficiency allowed by the constraints of the core program. Preplanned observations of sources (or region of the sky) will constitute the SVOM General Program (GP). The GP will be allocated 60% of useful mission time of the nominal mission. 10% of the GP will be outside the B1 law. The total time devoted to GP will be decreased to 35% of useful mission time of the extended mission. Along the mission lifetime, the time allocated to GP outside of the B1 law will be gradually up to 50 % (TBC) for the extended mission lifetime.

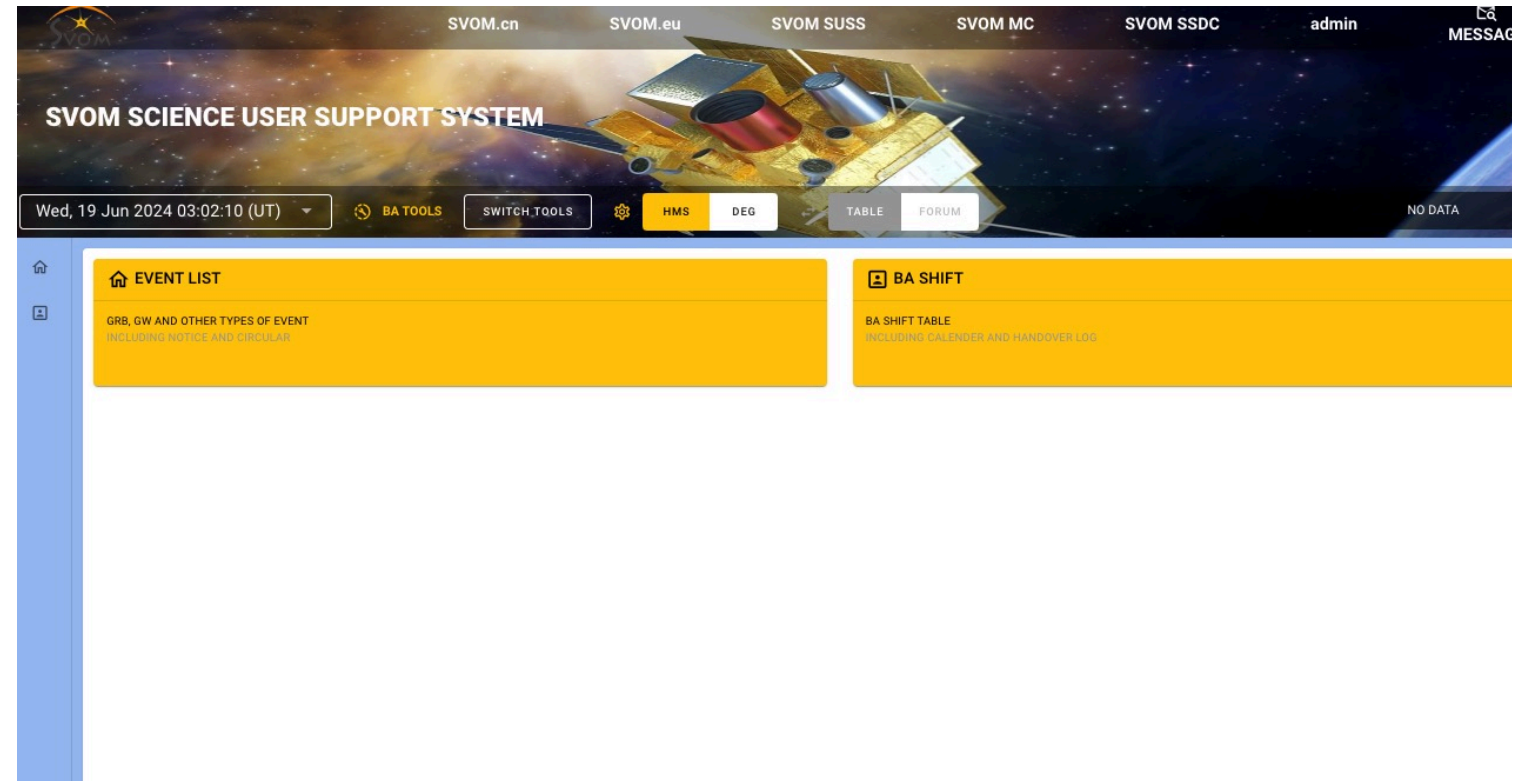
# Activities for BAs with CSC BA Tools



BA Tools
ToO Tools
Mattermost
Similar with GRB procedure

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- Access to CSC BA Tools
- CN BA shift
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- GRB: optical counterpart identification
- GRB: follow-up coordination
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- GW: tiling







# Access to CSC BA Tools

The SVOM Science User Support System (SUSS) integrates SVOM CSC BA, ToO and GP tools. The users need to select the roles after logging in.

Official SUSS Website: <https://www.svom.cn/> (will be open for login after the training)

BA Training Website: <https://svom-gwacn.cn/BA-dev/> (used for this workshop with username: ba\_training, password: 123456)

The screenshot shows the SVOM Science User Support System (SUSS) website interface. The top navigation bar includes links for SVOM.cn, SVOM.eu, SVOM SUSS, SVOM MC, SVOM SSDC, and an admin link. A message icon is also present. The main header features the SVOM logo and the text "SVOM SCIENCE USER SUPPORT SYSTEM". Below the header, a date and time display shows "Wed, 19 Jun 2024 03:02:10 (UT)". A central navigation bar contains buttons for "BA TOOLS", "SWITCH TOOLS", "HMS", "DEG", "TABLE", and "FORUM". A "NO DATA" indicator is visible on the right. The main content area is divided into two yellow panels: "EVENT LIST" (with subtext "GRB, GW AND OTHER TYPES OF EVENT INCLUDING NOTICE AND CIRCULAR") and "BA SHIFT" (with subtext "BA SHIFT TABLE INCLUDING CALENDER AND HANDOVER LOG"). A blue sidebar on the left contains a home icon and a user profile icon.





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## BA shift

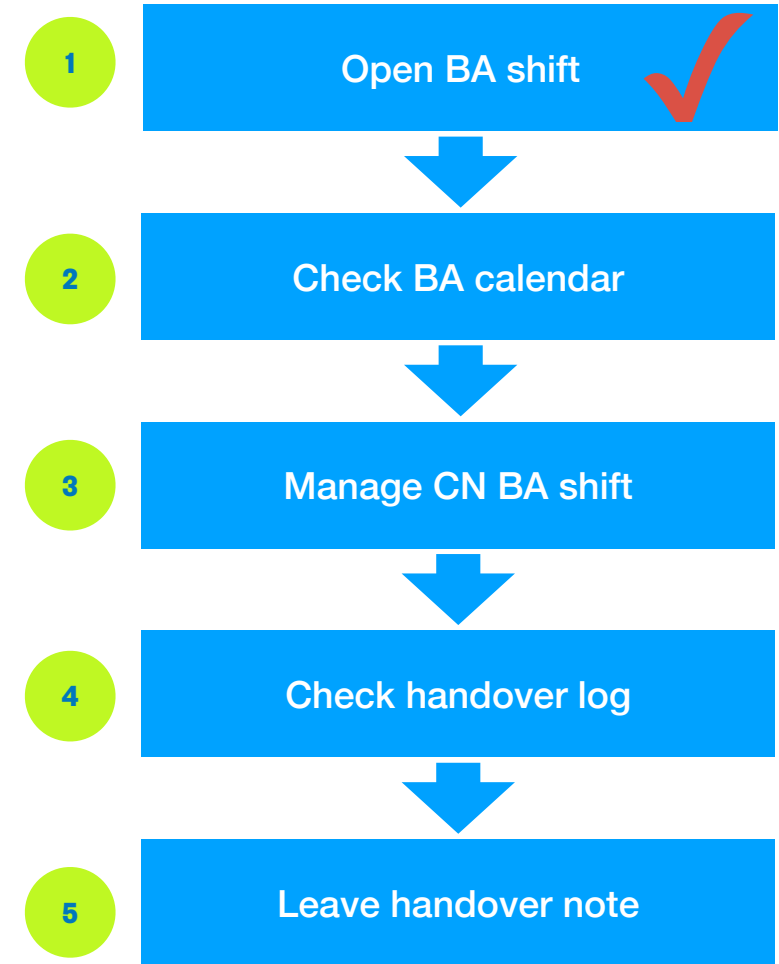
The CSC BA tools provide the functions for organising the BA shift for the Chinese side, displaying the BA calendar of both sides and handovers.

For CN BA, one needs to check his/her duty in the calendar. He/she needs to leave handover note to the successor. The message could be given in the CSC BA tools or in the Mattermost (depending on the organization )



# BA shift

Two ways to access the BA shift: from the card in the homepage, from the navigation panel of the left side of the page. It is same for the Event.



The screenshot shows the SVOM Science User Support System interface. At the top, there are navigation links for SVOM.cn, SVOM.eu, SVOM SUSS, SVOM MC, SVOM SSDC, and an admin link. A 'MESSAGE' icon is also present. The main header reads 'SVOM SCIENCE USER SUPPORT SYSTEM'. Below this is a status bar showing the date and time: 'Wed, 19 Jun 2024 03:02:10 (UT)'. There are several tool buttons: 'BA TOOLS', 'SWITCH TOOLS', 'HMS', 'DEG', 'TABLE', and 'FORUM'. A 'NO DATA' indicator is on the right. The main content area features two yellow cards: 'EVENT LIST' (with subtext 'GRB, GW AND OTHER TYPES OF EVENT INCLUDING NOTICE AND CIRCULAR') and 'BA SHIFT' (with subtext 'BA SHIFT TABLE INCLUDING CALENDAR AND HANDOVER LOG'). A red callout box on the left points to the navigation panel with the text 'Access from navigation panel'. Another red callout box on the right points to the 'BA SHIFT' card with the text 'Click the card'.



# BA shift

Sat, 15 Jun 2024 14:46:56 (UT) BA TOOLS SWITCH TOOLS HMS DEG TABLE FORUM DATA 2024-06-14T08:53:30Z

Select a date

June 2024 ON DUTY STAND BY OFF DUTY DAY

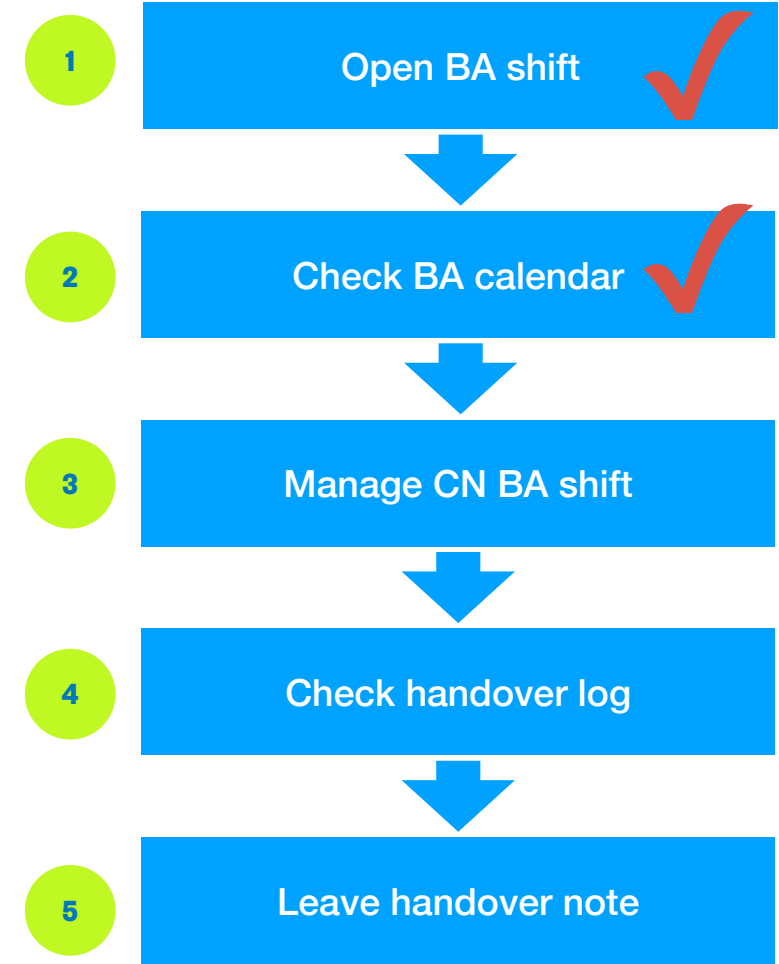
BA SHIFT TABLE SELECT FILE UPDATE BA SHIFT

BA calendar for both sides

manage CN BA shift (limited for BA manager)

choose "DAY" mode to see details

S	M	T	W	T	F	S
2	3	4	5	6	7	8
Defeng Kun (kongdefeng@st.g...)	Weikang Zheng (zwk@astro.be)	Yifang Liang (yfliang@pmo.ac...)	Chenxu Liu (cxliu@ynu.edu.cn)	Li Zhang (zhangli@ihep.ac.cn)	Boting Wang (wangbaiting@yn...)	Zuke Feng (fengzk@st.gxu.edu...)
Jiangxin Cao (cjsx@st.gxu.edu...)	Lin Lan (lanlin@bao.ac.cn)	Tianrui Sun (trsun@pmo.ac.cn)	Sili Wang (olivertongji@gmail.c...)	Yue Huang (huangyue@ihep.ac...)	Feifan Song (songfeifan@ynac...)	Guoyu Li (guoyu.li@st.gxu.edu...)
andrea.saccardi@obspm.fr, jes...	dylan.adrien@cea.fr, diego.got...	dylan.adrien@cea.fr, diego.got...	dylan.adrien@cea.fr, diego.got...	dylan.adrien@cea.fr, diego.got...	dylan.adrien@cea.fr, diego.got...	dylan.adrien@cea.fr, diego.got...
9	10	11	12	13	14	15
Mingxuan Lu (lumx@st.gxu.edu...)	Xuhui Han (hxh@nao.cas.cn)	An Li (anli@mail.bnu.edu.cn)	Liangjun Chen (chenlj@st.gxu...)	Ruizhi Li (liruizhi@ynao.ac.cn)	Wenjin Xie (nan)	Kuan Liu (liuk@st.gxu.edu.cn)
Ziqi Wang (ziqi.wang@st.gxu.e...)	Chao Wu (cwu@nao.cas.cn)	Haoli Shi (shihl@ihep.ac.cn)	Youdong Hu (huyoudong072@...)	Jirong Mao (jirongmao@mail.y...)	Liping Xin (xlp@nao.cas.cn)	Wei Deng (dengw@st.gxu.edu...)
dylan.adrien@cea.fr, diego.got...	cangemi@apc.in2p3.fr, coleiro...	cangemi@apc.in2p3.fr, coleiro...	cangemi@apc.in2p3.fr, coleiro...	cangemi@apc.in2p3.fr, coleiro...	cangemi@apc.in2p3.fr, coleiro...	cangemi@apc.in2p3.fr, coleiro...
16	17	18	19	20	21	22
Defeng Kun (kongdefeng@st.g...)	Weikang Zheng (zwk@astro.be)	Yifang Liang (yfliang@pmo.ac...)	Chenxu Liu (cxliu@ynu.edu.cn)	Li Zhang (zhangli@ihep.ac.cn)	Boting Wang (wangbaiting@yn...)	Zuke Feng (fengzk@st.gxu.edu...)



The name is not clickable yet. Choose "DAY" mode to see detailed shift each day.





# BA shift

Sat, 15 Jun 2024 14:55:27 (UT) BA TOOLS SWITCH TOOLS HMS DEG TABLE FORUM DATA 2024-06-14T08:53:30Z

BA SHIFT CALENDAR HANDOVER LOG

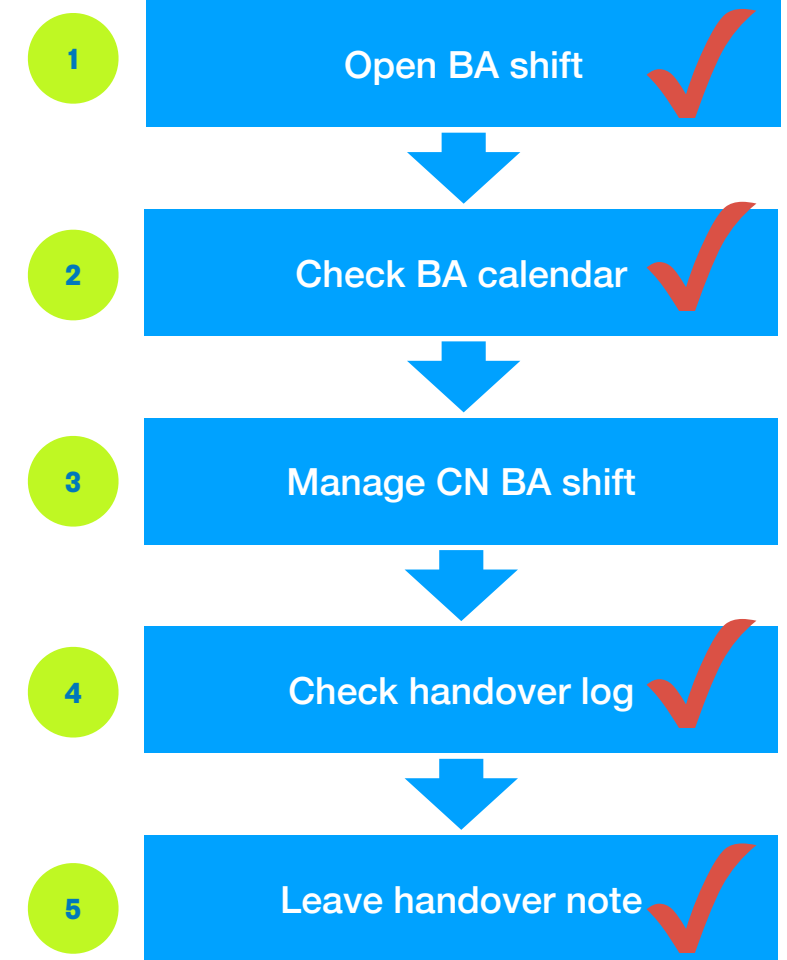
COMMENT	BA	DATE	ACTION
测试按钮禁用	admin	2023-12-01T07:55:41Z	DELETE
aeaeafaeafawefaeafef...	admin	2023-12-20T03:55:59Z	DELETE
123	admin	2023-12-01T01:07:24Z	DELETE
<input type="text"/>	admin		POST

Selected Columns: COMMENT, BA, DATE (+1 others)

Total: 1 < 1 > Items/Page: 20

Handover log

write handover note



BA can take note in the handover page. The note could be seen by all BAs.



The CSC BA tools provide the event validation function.

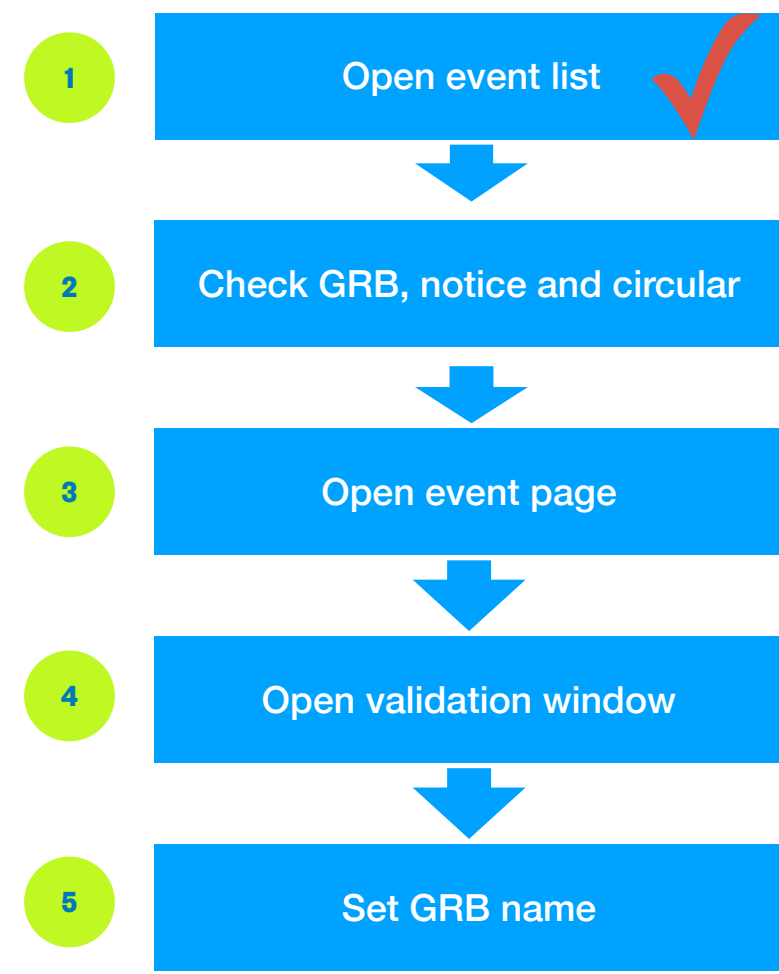
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## GRB: event validation

BA from both sides needs to validate the GRB in the iFSC tools. But BA also need to set the GRB official name in the CSC BA tools.



# Event validation



Access from navigation panel

Click the card

SVOM Science User Support System interface showing navigation and event validation options.

Navigation panel: HOME, EVENT LIST, BA SHIFT

Event List Card: GRB, GW AND OTHER TYPES OF EVENT INCLUDING NOTICE AND CIRCULAR

BA Shift Card: BA SHIFT TABLE INCLUDING CALENDER AND HANDOVER LOG





# Event validation

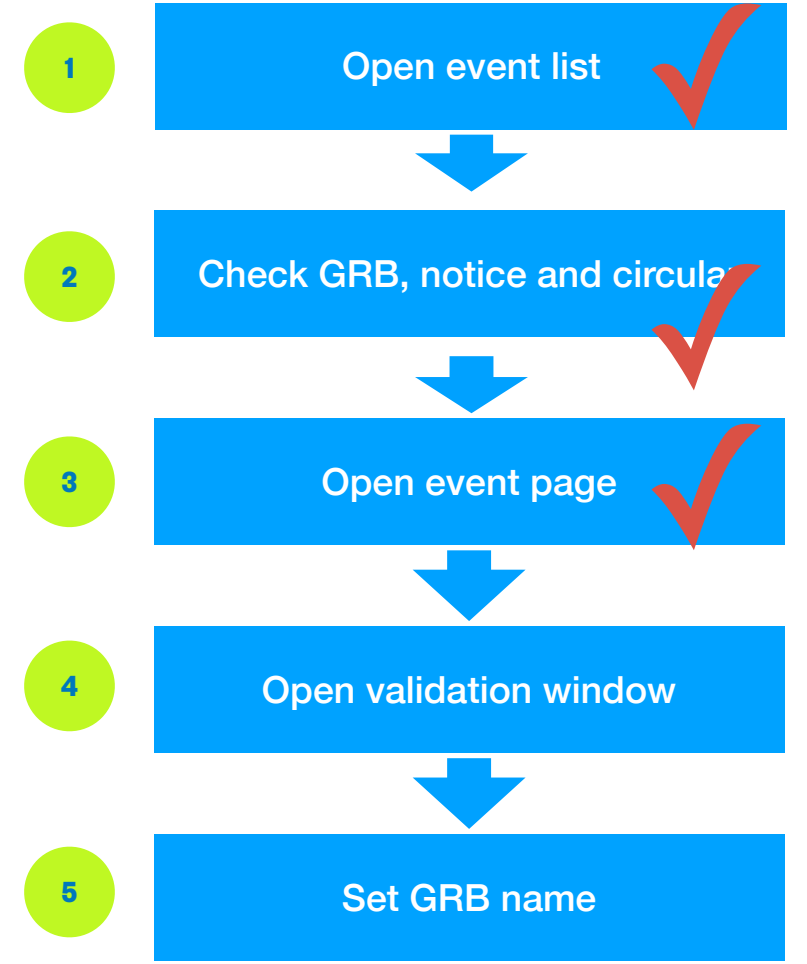
Event list

Notice list

Circular list

EVENT LIST										NOTICE LIST										CIRCULAR LIST									
ALL	SVOM GRB	OTHER GRB	GW	+ IMPORT EVENT	EVENT SEARCH	Updated at: 2024-06-15T19:58:35																							
ID	MISSION	TRIGGER NAME	EVENT NAME	SVOM BURST ID	TRIGGER TIME	RA	DEC	ERR	DEG																				
10004620	SVOM	<a href="#">sb24030701</a>	GRB240307A	sb24030701	2024-03-07T01:09:53.709	14:10:33.4	+29:41:58	0.017																					
1000000	LIGO/Virgo	<a href="#">S200114f</a>	G200114f		2020-01-14T02:08:18.239																								
999999	SVOM	<a href="#">sb24041201</a>	GRB24041201	sb24041201	2024-04-12T20:55:00.000	14:10:37.2	+29:41:56	0.050																					
7927	LIGO/Virgo	<a href="#">S240616c</a>			2024-06-16T02:32:54.287																								
7917	Fermi	<a href="#">740166710</a>			2024-06-15T17:51:45.050	22:21:33.6		1.390																					
7914	LIGO/Virgo	<a href="#">S240615eg</a>			2024-06-15T16:47:14.617																								
7913	LIGO/Virgo	<a href="#">S240615ea</a>			2024-06-15T16:07:35.333																								
7907	LIGO/Virgo	<a href="#">S240615dg</a>			2024-06-15T11:36:20.715																								

Click "TRIGGER NAME TO OPEN EVENT PAGE"



The GRBs from not only SVOM but also other missions and GW are displayed in the page.



# Event validation

Basic information

Notice & circular

Observation and data

Identified counterpart

Click "VALIDATE EVENT" to open the validation window

SVOM VT INSTRUMENT CENTER

Sun, 16 Jun 2024 04:55:07 (UT)

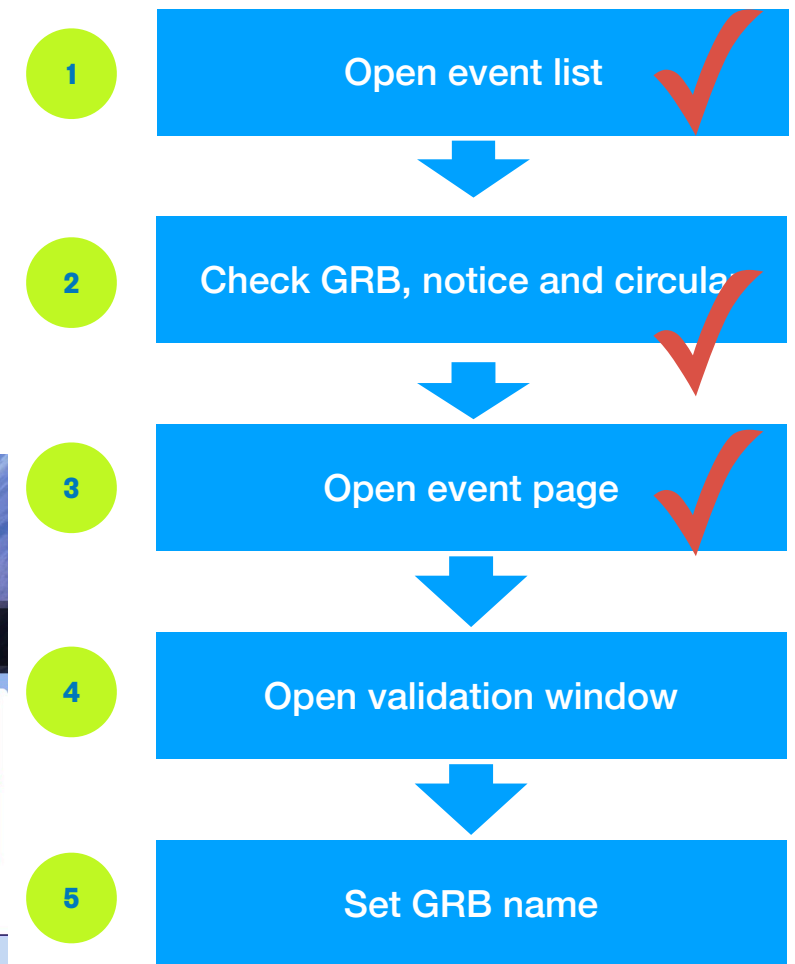
BA TOOLS SWITCH TOOLS

HM DEG TABLE FORUM DATA 2024-06-14T08:53:30Z

VALIDATE EVENT

EVENT		NOTICE & CIRCULAR		OBSERVATION		COUNTERPART		DISCUSSION	
MISSION	TRIGGER NAME	EVENT NAME	SVOM BURST ID	TYPE	TRIGGER TIME	RA	DEC	ERR	VALIDATION
SVOM	sb24030701		sb24030701	Gamma-ray Burst	2024-03-07T01:09:53.709	14:10:33.4	+29:41:58	0.017	Y

Selected Columns: MISSION TRIGGER NAME EVENT NAME (+10 others)



In this page, all information of this GRB are gathered. BA can find the burst ID, trigger time, best coordinates, notices, circulars, all space-based and ground-based observations, all identified counterparts and all discussions made by BAs.

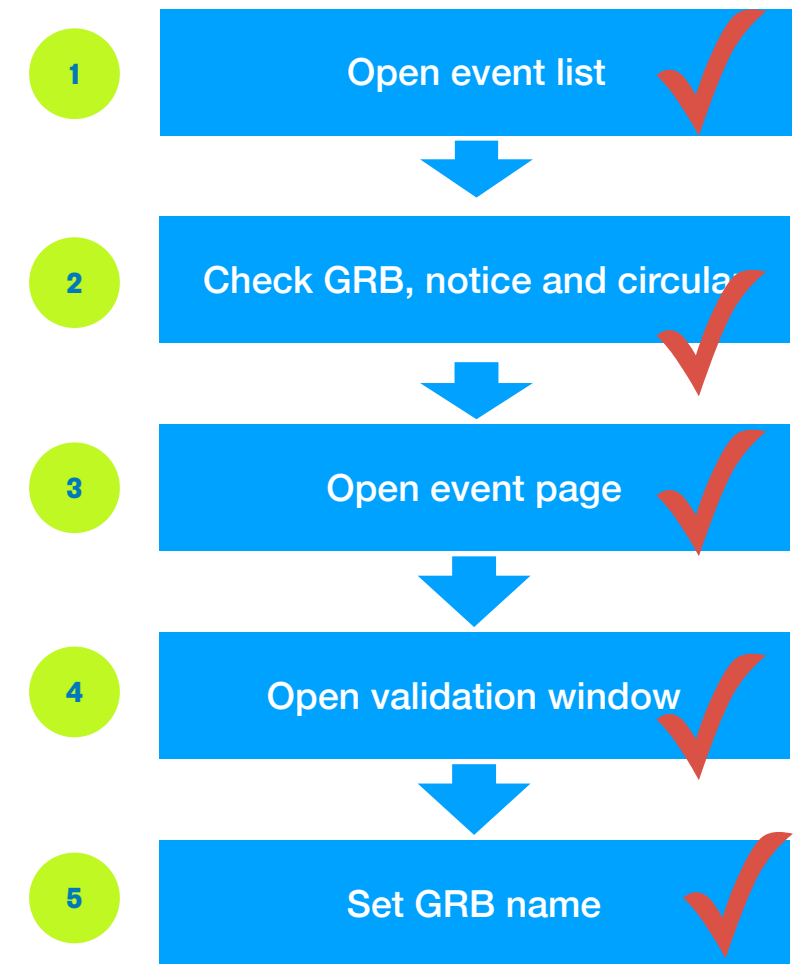
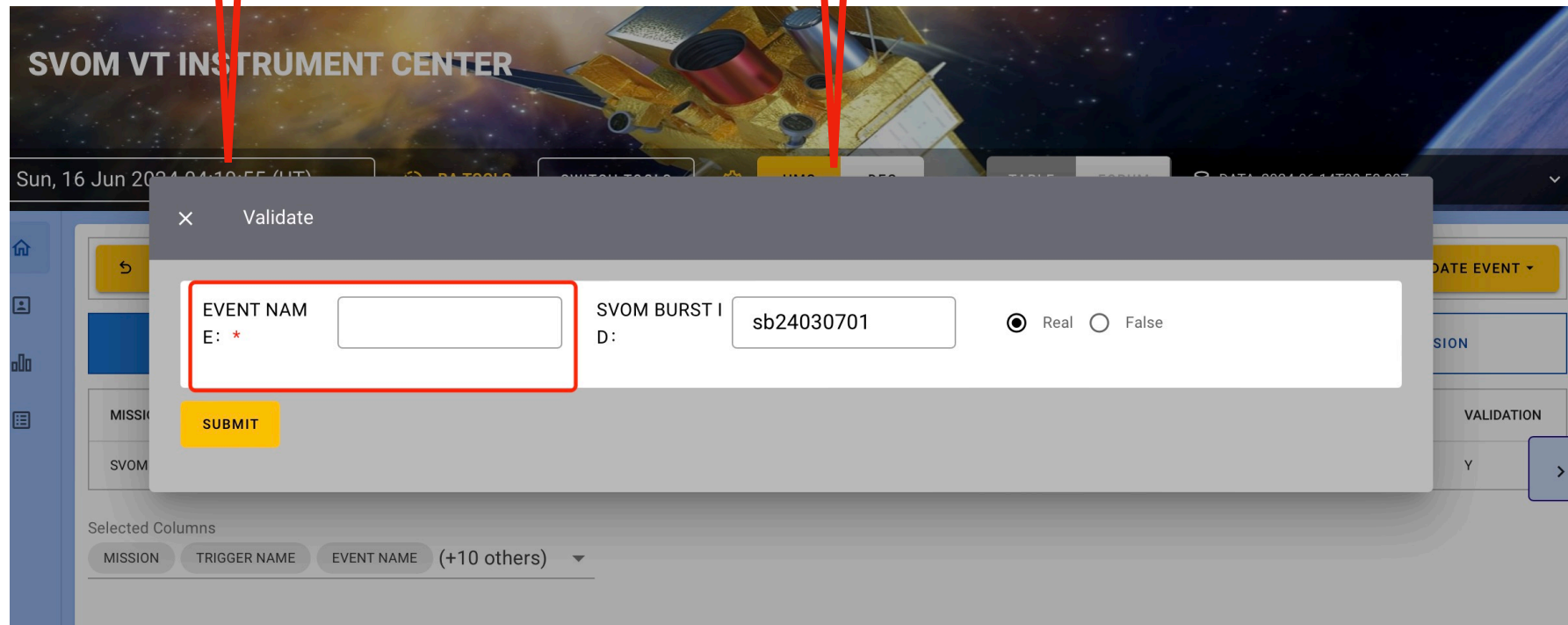
In the top right of the page, a list shows all actions that BAs can do with the CSC BA tools, including: validating event, updating data, coordinating follow-up observations, identifying optical counterparts of GRB and preparing notices/circulars.



# Event validation

Set GRB name

Validate



BA needs to set the wide-used name of GRB as a official name, like “GRB240307A”. The event name for non-SVOM GRB should also be given. A benefit of setting name is one astronomical event independently detected by different satellites can be linked by doing this.





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## **GRB: optical counterpart identification**

The CSC BA tools provide the optical counterpart identification functions.

For BA from both sides, one can check all data of one GRB in the BA tools. BA needs to identify the optical counterpart based on the data.

The real optical counterpart of GRB (if exists) could be detected by different telescopes in different bands. This source independently detected by different telescope has different names (candidates level 1 (CL1)) and coordinates. The counterpart identification strategy is that, first, the CL1s are grouped automatically or manually. The grouped CL1 can be considered as one source. Then, BA can select the counterparts from the sources based on their positions, morphologies and variable features.



# Optical counterpart identification

Select "IDENTIFY COUNTERPART"

TELESCOPE	OBSERVATION TIME	OBS ID	FOLLOW-UP REQUEST ID	COUNTERPART	REQUEST INFO	DATA	ACTION
VT-XBAND						Y	DOWNLOAD DATA -
VT-VHF						Y	DOWNLOAD DATA -
SVOM		94		sb24030701_376		N	UPLOAD DATA -
CGFT						Y	DOWNLOAD DATA -

Click to see the data

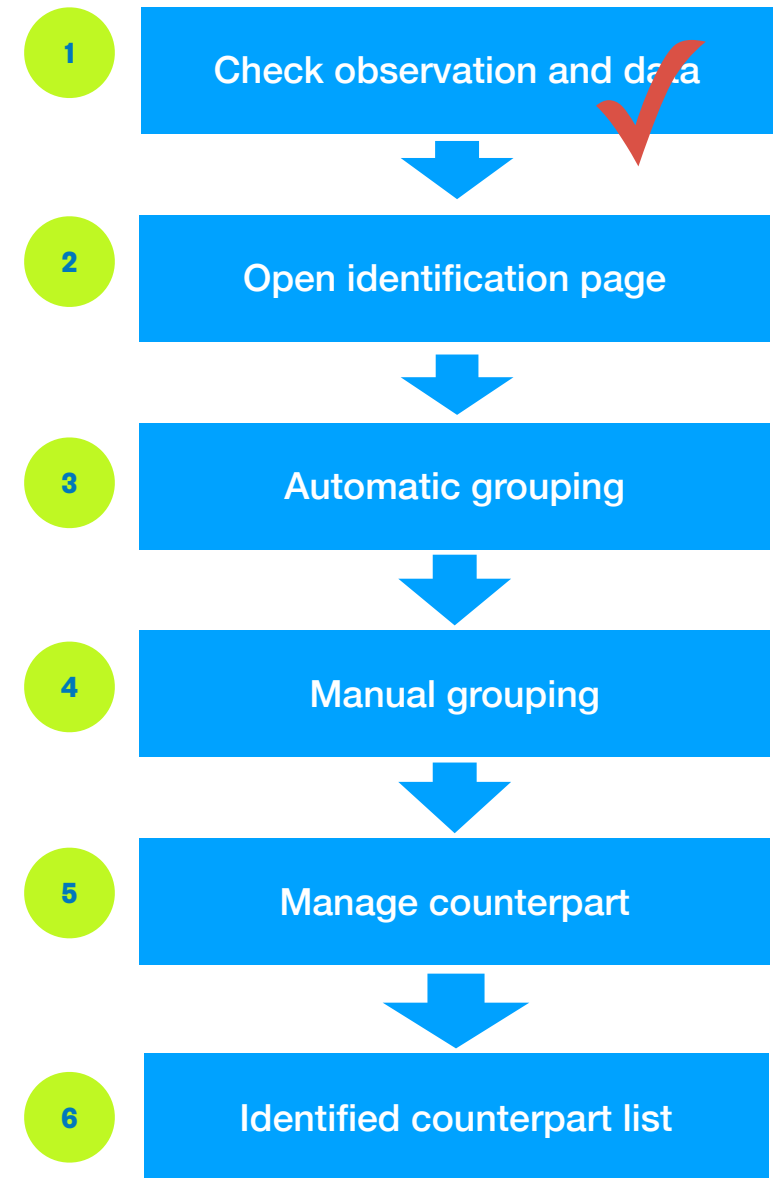
Download data

Upload data

DATA PACKET	DESCRIPTION	DATA TYPE	DATA ARRIVING TIME	STANDARD	VISUALIZATION
VT_2568132952_B_sb24030701_240307T011300_1b.fits		IMAGE	2024-06-14T08:43:18Z	N	
VT_2568132952_B_sb24030701_240307T011300_1b.png		IMAGE	2024-06-14T08:43:18Z	N	

Check data

Check image

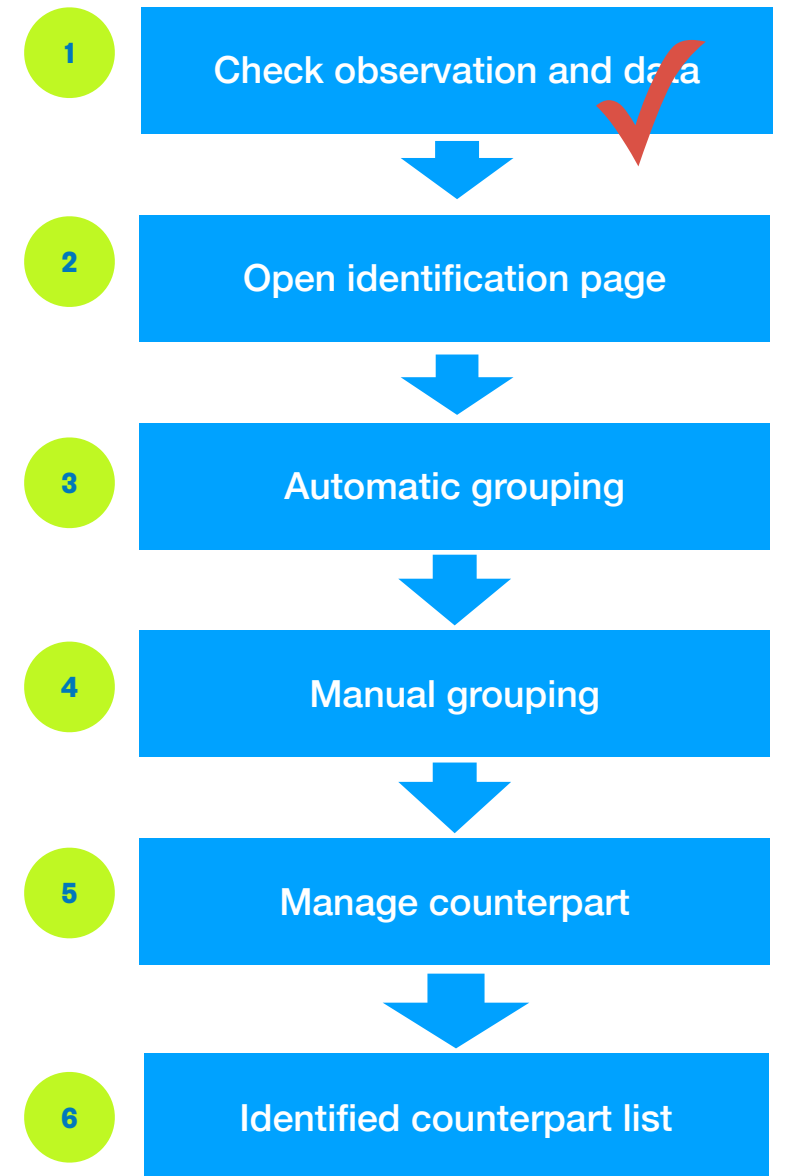
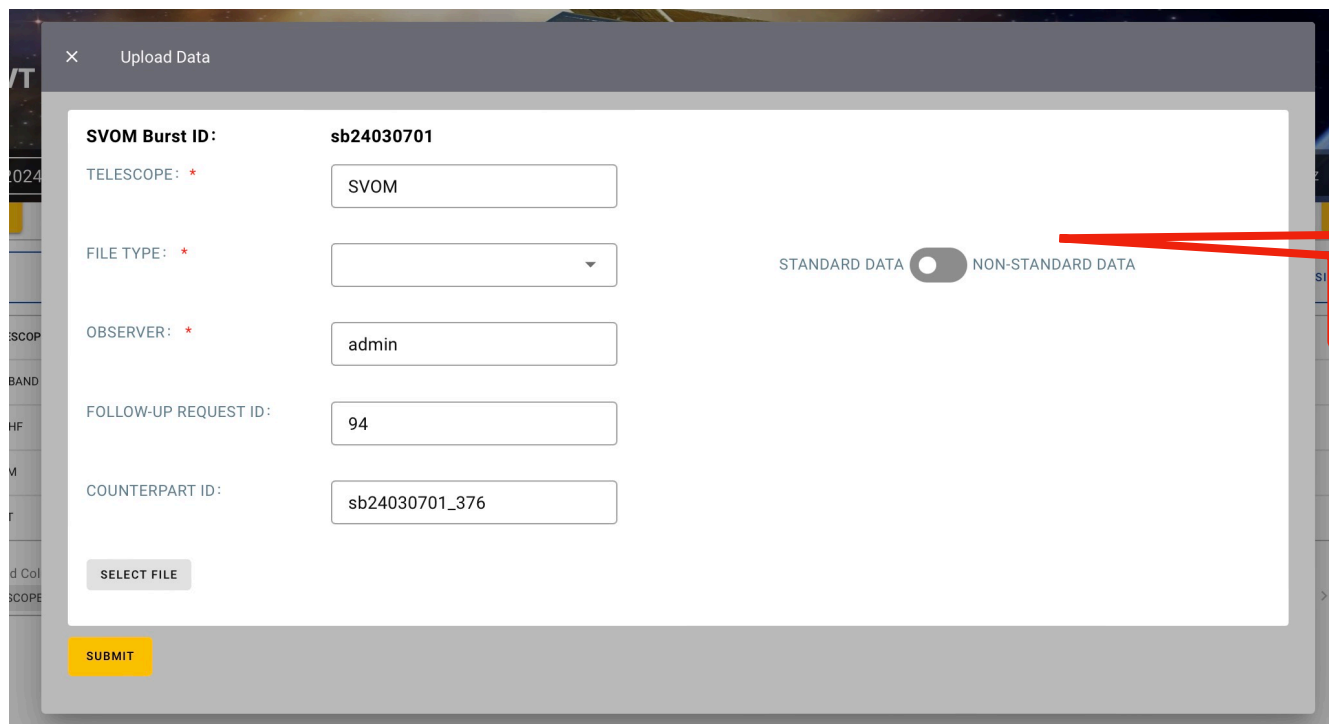
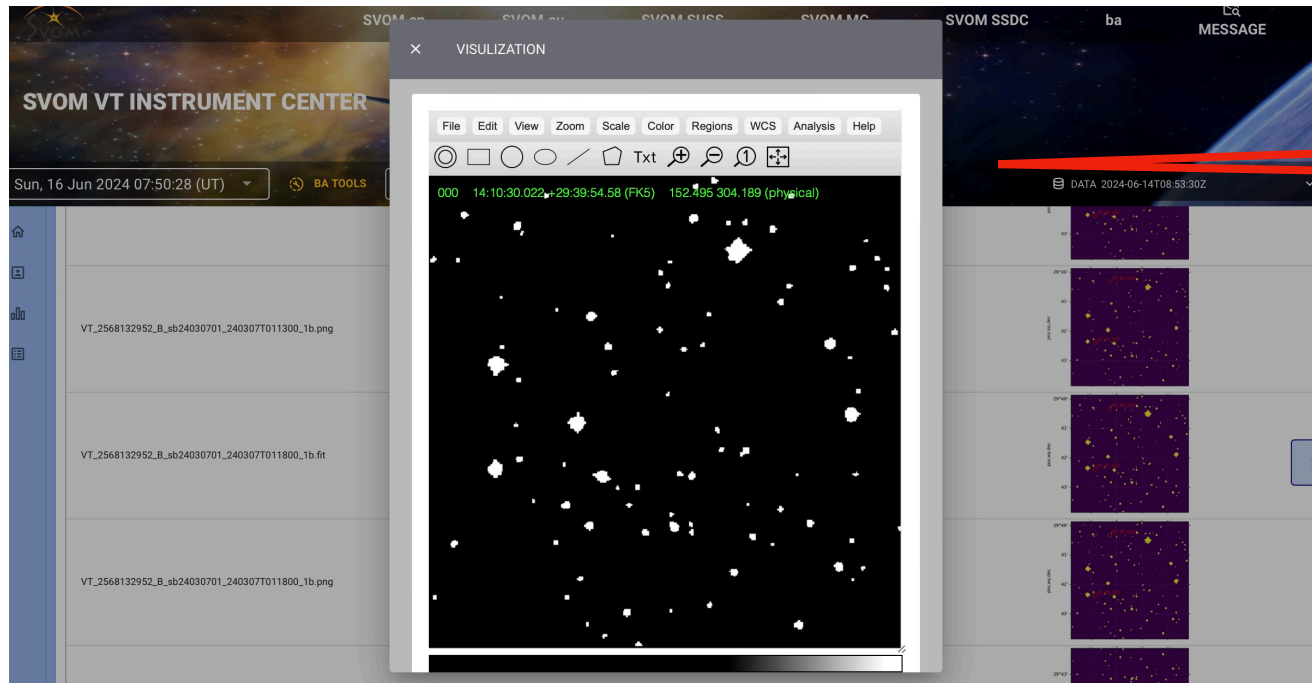


The "OBSERVATION" tab lists the observations made for this GRB. If the value of "DATA" is "Y", some data are available for BA to check. The image can be displayed. If it is a "fits" file, an interactive tool is provided for BA to see details.

To open the identification page, select the "IDENTIFY COUNTERPART" action.



# Optical counterpart identification



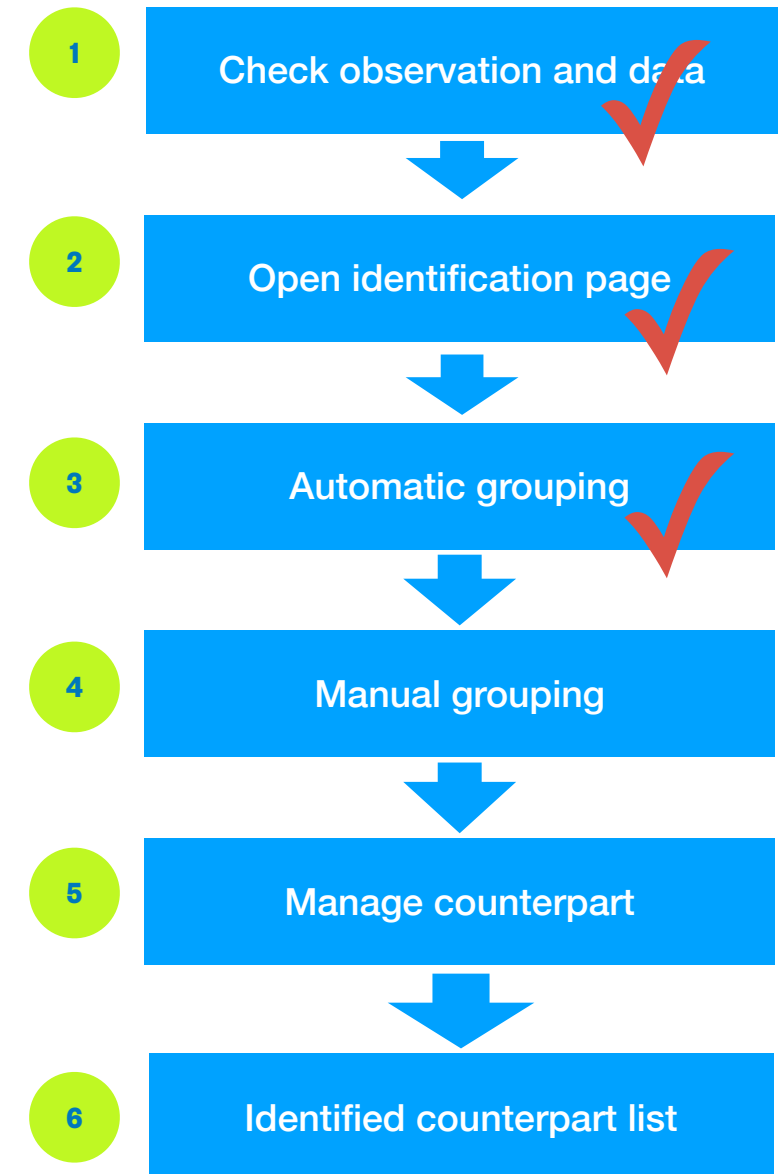
BA can upload data. Many types of files are allowed





# Optical counterpart identification

The screenshot shows a web interface for identifying optical counterparts. It features a top navigation bar with 'UNIDENTIFIED CANDIDATES' (27 CANDIDATES) and 'DATA' (10 FILES RECEIVED) sections. A 'CANDIDATE LIST' section contains a 'GROUP LIST' with a grid of group cards. Each card displays 'GROUP INFO' including RA, DEC, ERR(ARC SEC), and CL1 NUM. A 'Check data' callout points to the 'UNIDENTIFIED CANDIDATES' section. An 'Automatic grouping' callout points to the 'AUTO' button. A 'Group card' callout points to a specific group card. A 'Check aladin' callout points to a star field image on the left. A 'Manual grouping' callout points to the 'MAN' button.



One source in different images of different telescopes can be detected as different sources (CL1s). Therefore, the CL1s should be firstly grouped automatically based on their position. Each group card should the information of one source. Click the group card to check the information.

To see what data is currently available, click “DATA” card.



# Optical counterpart identification

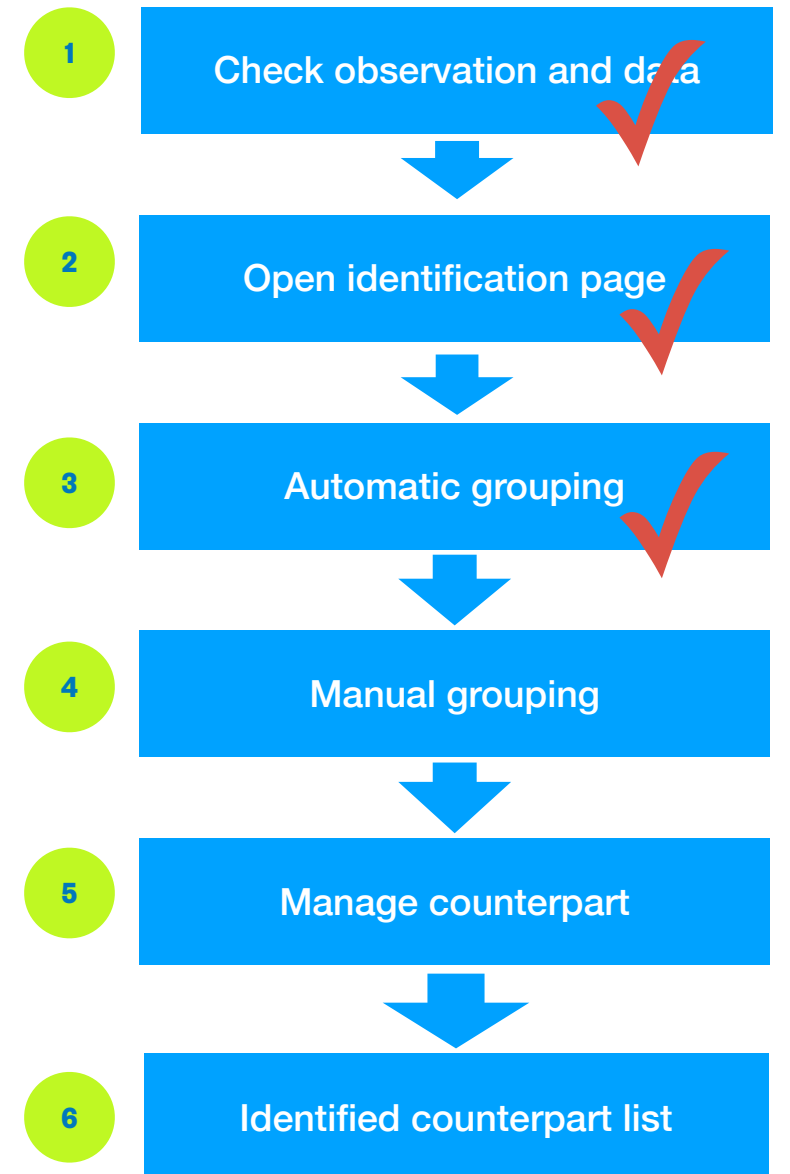
Data window

Image



Data status

Upper limit curve



In the “DATA” card, data status of each telescope is given. The “STANDARD DATA” means the data is decoded and is visualized in the BA tools. The fits image and upper limit magnitude of the image are provided when the “IMAGE” is “true”.

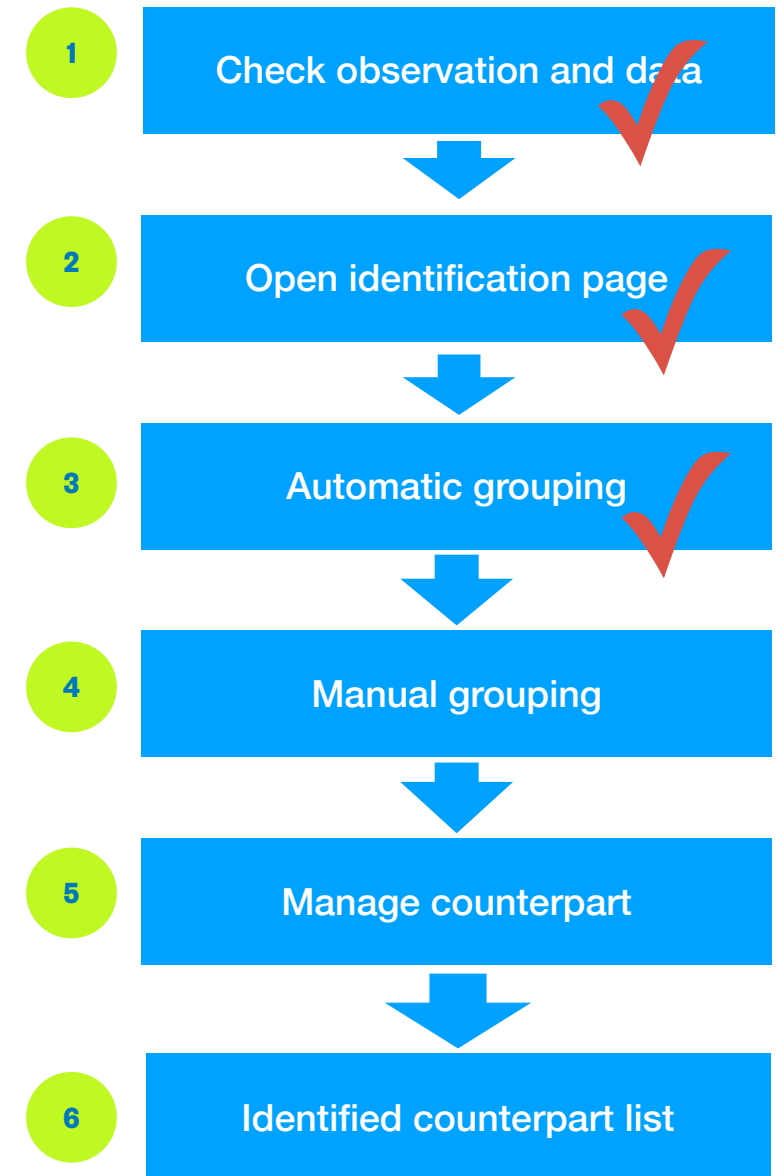


# Optical counterpart identification

The screenshot shows the 'COUNTERPART PARAMETER' interface for source 'sb24030701\_376'. It includes an Aladin view, a lightcurve plot, a sub-image, and a table of CL1s. Callouts highlight key features:

- Check aladin**: Points to the Aladin view.
- Lightcurve of CL1s**: Points to the lightcurve plot.
- magnitude of CL1s**: Points to the magnitude data in the table.
- Select counterpart**: Points to the 'SELECT AS A COUNTERPART' button.
- Download light curve**: Points to the 'DOWNLOAD LC' button.
- magnitude of CL1s**: Points to the 'MAG' column in the table.
- Sub-image**: Points to the 'download IMG' button.

TIME	MAG	MAG ERR	UPLIMIT	FILTER
2024-03-07T01:25:42Z	18.248	0.319	19.6248	
2024-03-07T01:37:54Z	18.166	0.292	19.6383	
2024-03-07T01:39:36Z	18.075	0.296	19.5235	

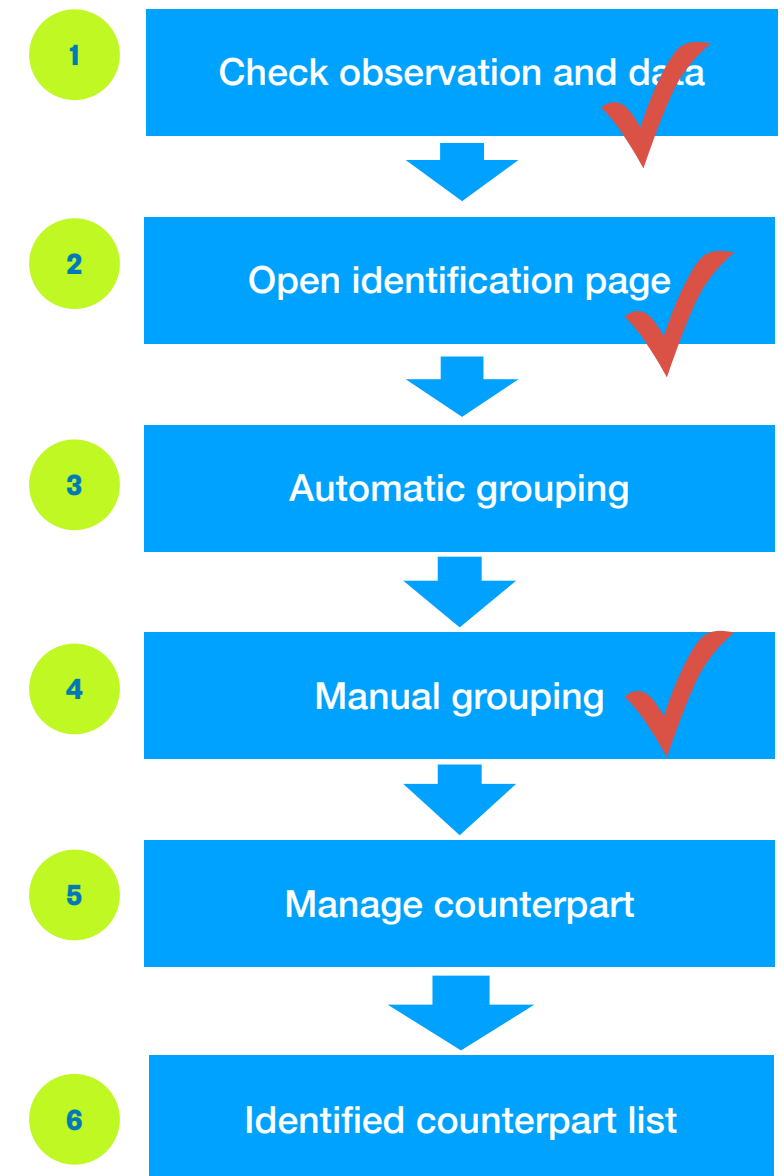


After opening the “Group Card”, all CL1s considered as this source are shown in one page. The aladin shows their position. The light curves show their variable features. The sub-image show their morphologies. BA can decide whether this source is the optical counterpart of the GRB. If yes, click “SELECT ASA COUNTERPART” to submit.



# Optical counterpart identification

CANDIDATE LIST	5 arc.sec	GROUP
CL1_18800_VT-XBAND	5 arc.sec	GROUP
CL1_18799_VT-VHF	5 arc.sec	GROUP
CL1_18798_VT-VHF	5 arc.sec	GROUP
CL1_18791_CGFT	5 arc.sec	GROUP
CL1_18790_CGFT	5 arc.sec	GROUP
CL1_18789_CGFT	5 arc.sec	GROUP
CL1_18788_CGFT	5 arc.sec	GROUP
CL1_18787_CGFT	5 arc.sec	GROUP
CL1_18786_CGFT	5 arc.sec	GROUP
CL1_18785_CGFT	5 arc.sec	GROUP
CL1_18784_CGFT	5 arc.sec	GROUP
CL1_18783_CGFT	5 arc.sec	GROUP
CL1_18782_CGFT	5 arc.sec	GROUP
CL1_18781_CGFT	5 arc.sec	GROUP



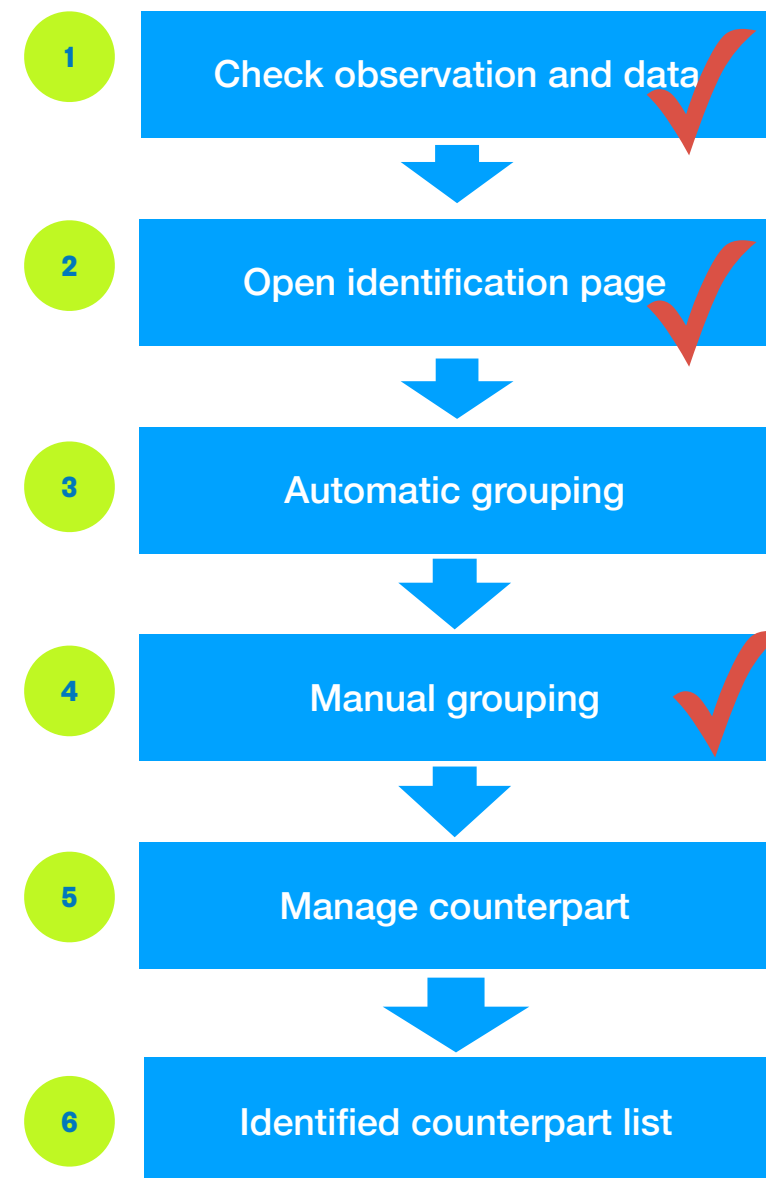
If BA decides to check the information of CL1 and to find the nearest CL1s by oneself, BA can choose to using “MAN grouping”. In this page, all CL1 are listed.





# Optical counterpart identification

	MAG	MAG ERR	UPLIMIT	FILTER
01:11:18Z	13.274	0.004	19.7958	g
01:13:00Z	14.081	0.008	19.7332	g
01:14:44Z	14.692	0.013	19.7248	g
01:16:27Z	15.01	0.017	19.7021	g
01:18:10Z	15.163	0.019	19.7085	g
01:19:54Z	15.396	0.024	19.6951	g



To click the CL1, BA can see the light curve of it. Click the dot in the light curve to show the sub-image. BA can choose the grouping radius and make grouping. The result is shown in the right side. The light curves of all CL1 in the same group is displayed for comparison. BA can decide whether this source is the optical counterpart of the GRB. If yes, click “SELECT AS A COUNTERPART” to submit.



# Optical counterpart identification

GRB 240307E

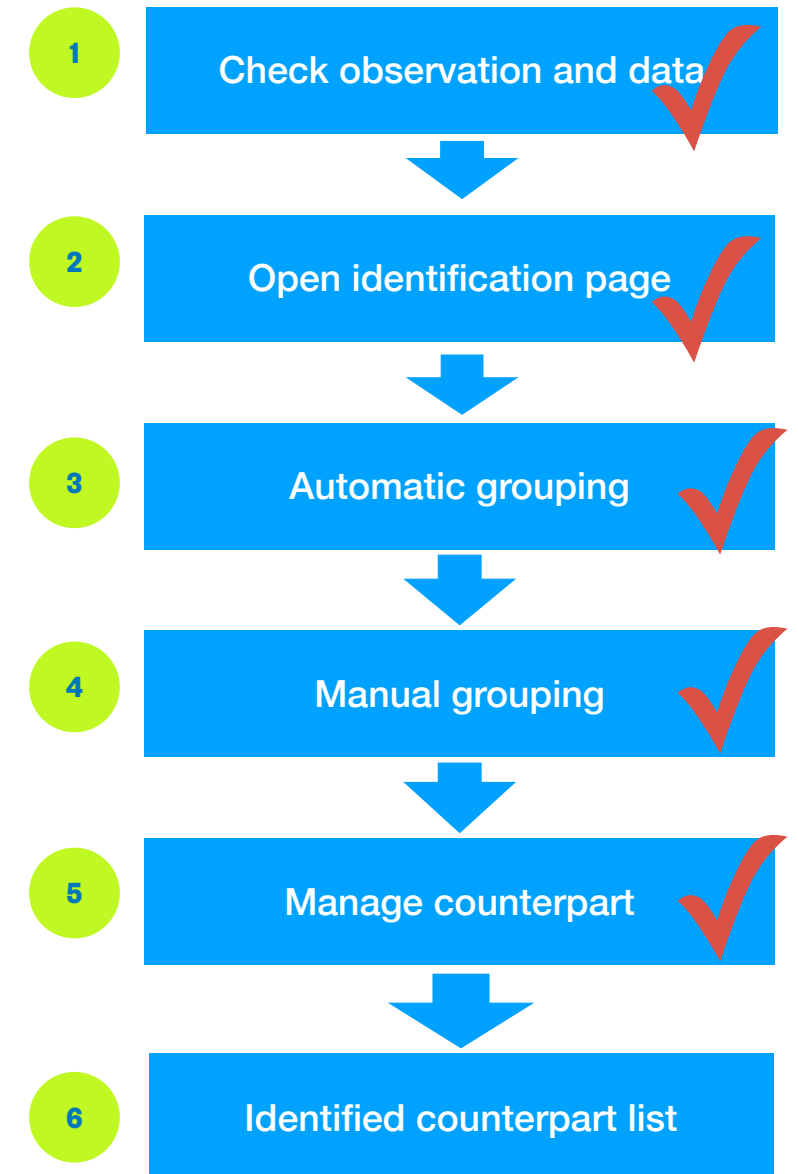
**Selected Counterpart**

COUNTERPART	BEST DETECTION	CL1	DETECTION TIME	T-T0	SEC	RA	DEC	ERR	ARC SEC	ACTION
sb24030701_375	CGFT	CL1_18786_CGFT	2024-03-07T01:29:08Z	1154		14:10:40.1	+29:42:59	1		<b>FOLLOW-UP</b>

Selected Columns: COUNTERPART, BEST DETECTION (+7 others)

**Counterpart list**

**Actions**



The identified counterparts are listed in the Selected Counterpart table. BA can start the procedures of follow-up observation, notice generation and circular generation by selecting actions in the right side.

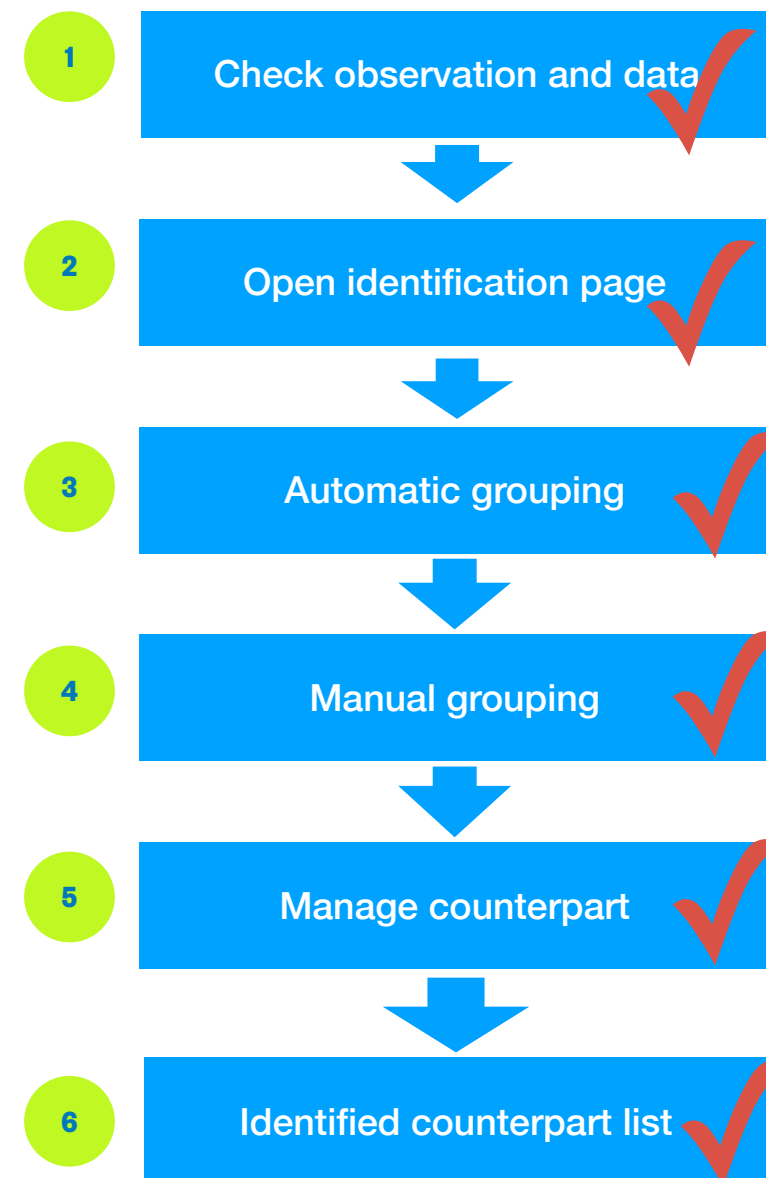


# Optical counterpart identification

Identified counterpart list

Counterpart tab

Un-identified counterpart list



The identified counterparts are listed in the COUNTERPART tab of “Event” page. The un-identified CL1 are also listed in the same page.



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## **GRB: coordinate follow-up observations**

The CSC BA tools provide different ways to coordinate the follow-up observation with different types of telescopes.

For BAs from both sides, coordination of follow-up observations are very important jobs during their duty.

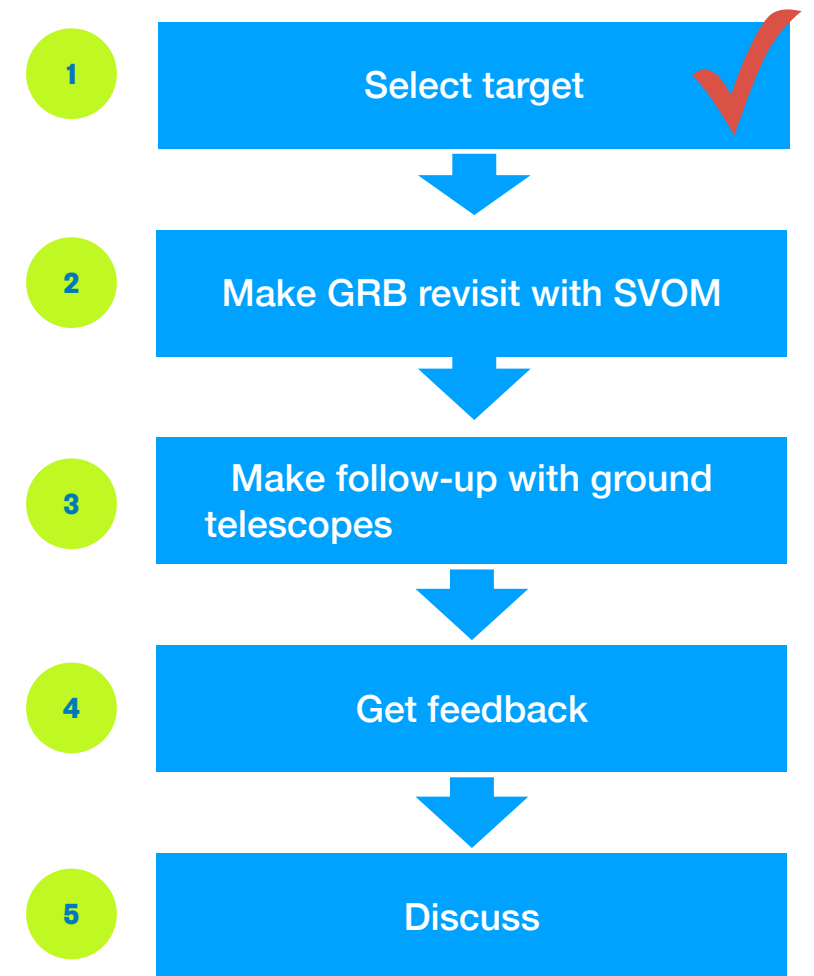
The follow-up facilities can be classified into four groups: 1. SVOM, 2. ground automatic telescopes, 3. ground semi-automatic telescopes, 4. ground manual telescopes. For different telescopes, the procedures are not same. The following section shows how to deal with different cases





# Coordinate follow-up observations

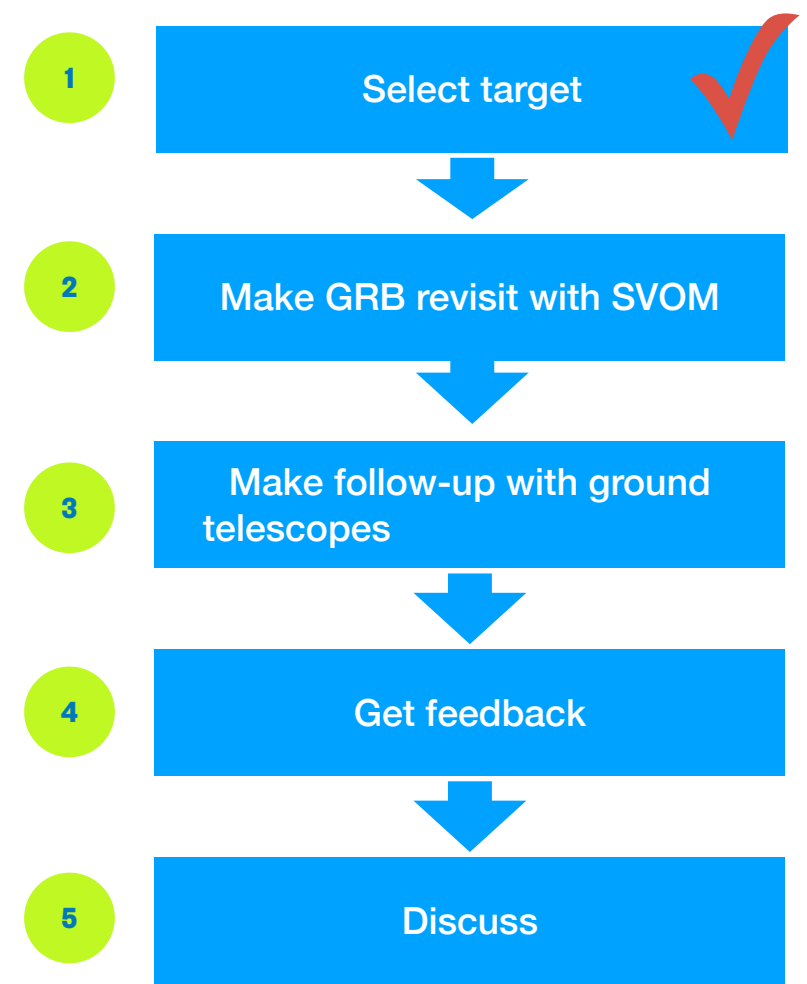
The screenshot shows a web interface for generating follow-up requests. It features three main sections: 'EVENT PARAMETER', 'COUNTERPART PARAMETER', and 'CANDIDATE PARAMETER'. Each section has a 'FOLLOW-UP FOR...' header and a 'Set coordinate' callout. The 'EVENT PARAMETER' section includes fields for SOURCE, RA, DEC, and ERR. The 'COUNTERPART PARAMETER' section includes fields for REQUEST DATE, SOURCE, RA, DEC, TELESCOPE, and OBSERVATION MODE. The 'CANDIDATE PARAMETER' section includes fields for SPECIAL REQUEST, OBSERVER, and PHONE. A 'SAVE PARAM' button is located at the bottom of the parameter sections. Below the parameter sections is a 'FOLLOW-UP REQUEST' section with a 'GENERATE FOLLOW-UP REQUEST' button and a 'FOLLOW-UP REQUEST CONTENT' section.



The first step to make a follow-up observation is to set the coordinates to point. There are three scenarios: 1. If BA needs to observe the GRB position when no counterpart is identified yet. 2. The counterpart is identified, BA wants to organize follow-up observations with multiple telescopes. 3. Non-credible counterpart is identified, but some interesting candidates detected.



# Coordinate follow-up observations



Select coordinate from notice

TYPE	ID	TIME	SUBJECT	OBS/INST	RA	DEC	ERR	DEG
<input checked="" type="radio"/>	NOTICE	2024-03-07T01:09:53.709	Svom-MXT	<a href="#">N2m notice (data from Svom-MXT)</a>	14:10:33.4	+29:41:58	0.017	
<input type="radio"/>	NOTICE	2024-03-07T01:09:53.709000	Svom-Eclairs	<a href="#">N1e notice (data from Svom-Eclairs)</a>	14:10:37.2	+29:42:04	0.056	
<input type="radio"/>	NOTICE	2024-03-07T01:09:53.709000	Svom-Eclairs	<a href="#">N1e notice (data from Svom-Eclairs)</a>	14:10:37.0	+29:41:57	0.057	

Manual input coordinates

**EVENT PARAMETER** ✓

FOLLOW-UP FOR TRIGGER

SOURCE:

RA: 14:10:33.4 DEC: +29:41:58

ERR(ARC SEC): 0.016666666666666666

Selected coordinates

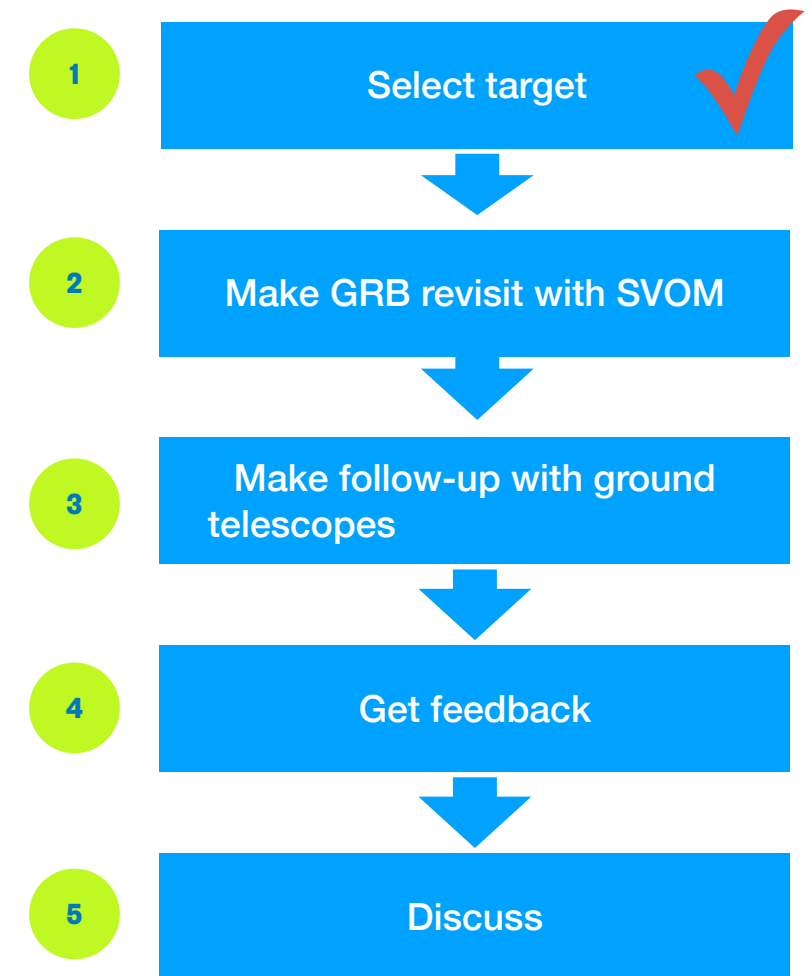
For the scenario 1, click “EVENT PARAMETER” card. All notices are shown, BA can select coordinates from them. If the coordinates are not accurate enough, BA can manually input the coordinates.

After the coordinates are set, they will be shown in the card.



# Coordinate follow-up observations

The screenshot shows the 'COUNTERPART VISUALIZATION' interface. At the top, a red box labeled 'Open CL1 list' points to the 'CL1 list' dropdown menu. Below this, the first entry 'CL1\_18779\_CGFT' is selected, with a red box labeled 'Set coordinate by select CL1' pointing to its radio button. To the right, a 'SAVE' button is highlighted with a red box labeled 'Save coordinates'. The interface displays two panels: the top one for 'CL1\_18779\_CGFT' shows a light curve plot and a 'download IMG' button, while the bottom one for 'CL1\_18782\_CGFT' shows a light curve plot and a 'Click light curve to see image' instruction.



For the scenario 2, click “COUNTERPART PARAMETER” card. BA need to select coordinates from a CL1. Since there are several CL1s for one counterpart, BA must decide the CL1 with best localization.

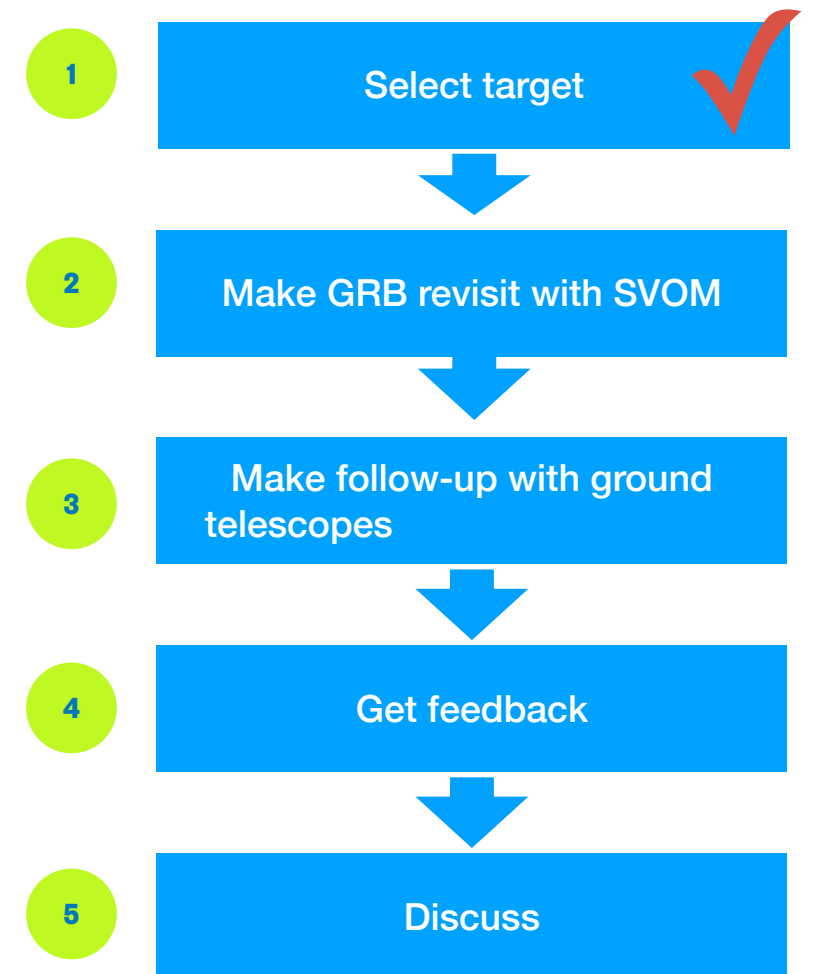


# Coordinate follow-up observations

The screenshot shows the 'CANDIDATE PARAMETER' interface with two candidate entries:

- CL1\_18800\_VT-XBAND:** RA: 14:10:33.4, DEC: +29:41:58. Light curve shows magnitude vs. time (0-250 minutes). A red box labeled 'Save coordinates' points to the 'all' and 'inverse' buttons.
- CL1\_18799\_VT-VHF:** RA: 14:10:35.4, DEC: +29:42:23. Light curve shows magnitude vs. time (1.5-5 minutes). A red box labeled 'Set coordinate by select CL1' points to the 'all' and 'inverse' buttons.

Buttons for 'ALADIN', 'DOWNLOAD LC', and 'LC ANALYSIS' are visible for each candidate. A 'SAVE' button is at the top right. A 'download IMG' button is below the image for CL1\_18800\_VT-XBAND.

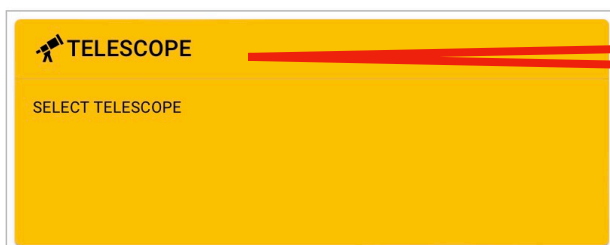


For the scenario 3, click “CANDIDATE PARAMETER” card. BA need to select coordinates from the interesting CL1.



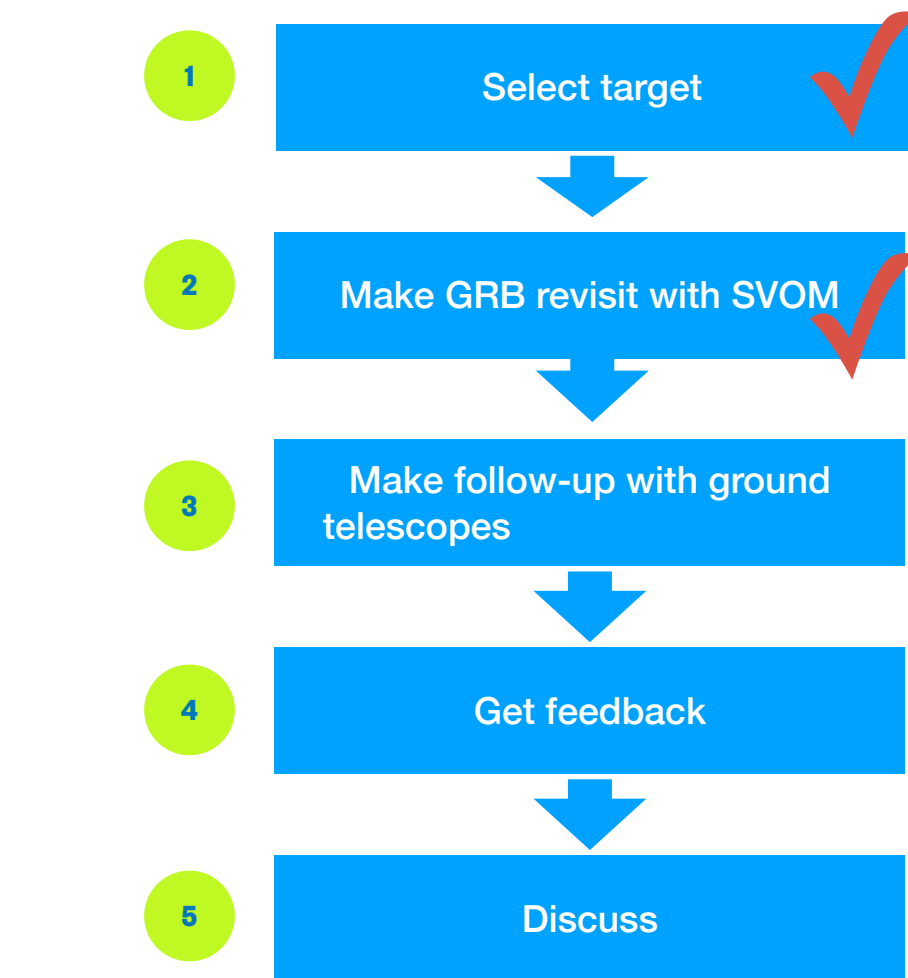


# Coordinate follow-up observations



Check all telescopes

TELESCOPE	SITE	LONGITUDE	LATITUDE	LOCALTIME	VISIBILITY	START	END	WEATHER
<input checked="" type="radio"/> SVOM								NO IMAGE
<input type="radio"/> CGFT	Jilin	126.33045959472656	43.824378967285156	2024-06-17T17:07:07	Y	2024-06-17T11:19:00Z	2024-06-17T19:51:00Z	
<input type="radio"/> XL216	Xinlong	117.5770034790039	40.393001556396484	2024-06-17T17:07:07	Y	2024-06-17T11:42:00Z	2024-06-17T20:36:48Z	
<input type="radio"/> LJT	Lijiang	100.03083038330078	26.70888900756836	2024-06-17T17:07:07	Y	2024-06-17T12:15:00Z	2024-06-17T20:57:38Z	
<input type="radio"/> KAIT	Lick	121.63481903076172	37.343345642089844	2024-06-17T17:07:07	Y	2024-06-17T11:16:00Z	2024-06-17T20:07:33Z	NO IMAGE

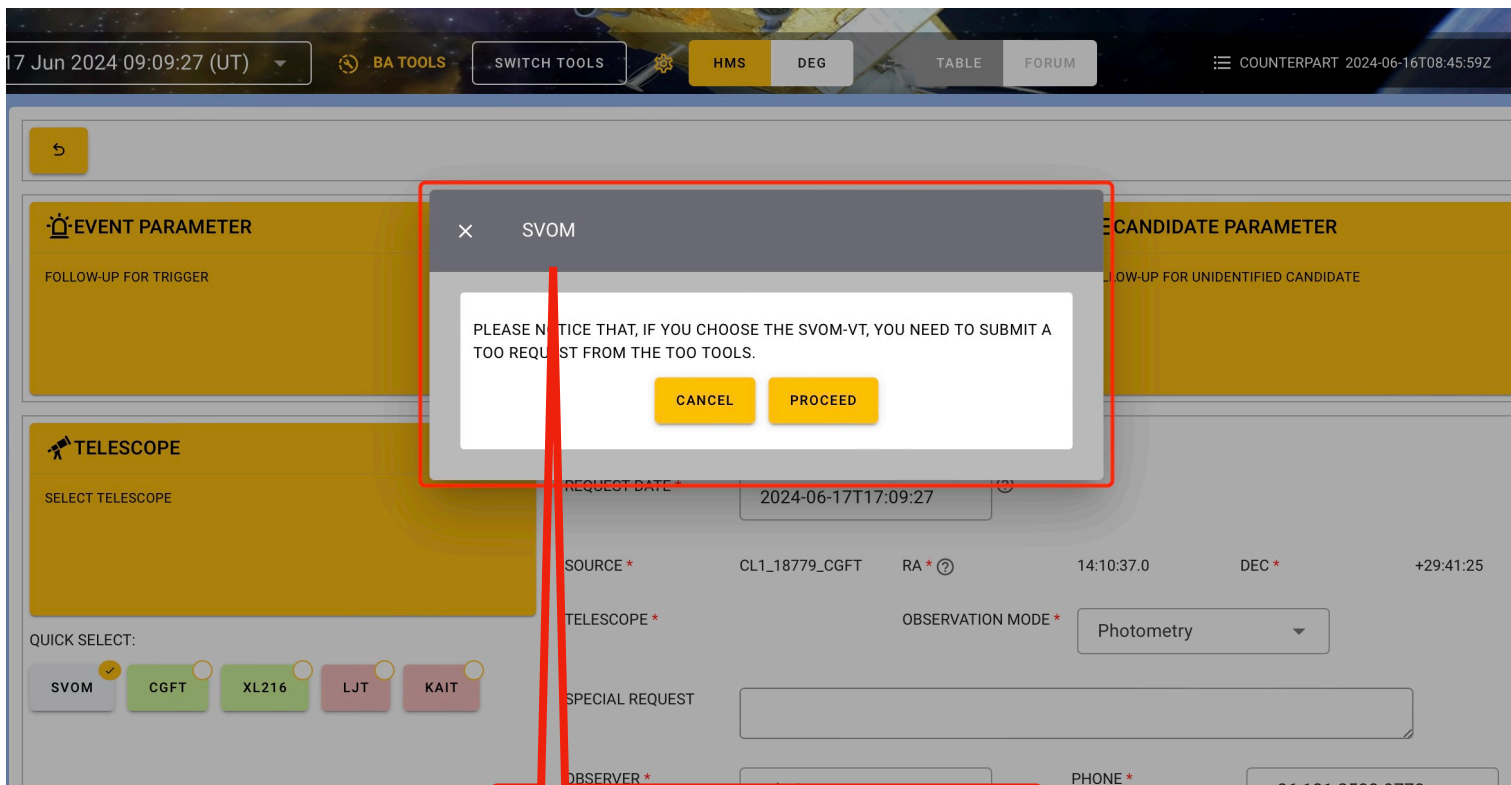


Select SVOM

After setting the coordinates, BA needs to choose the telescope to use. In the “TELESCOPE” card, all telescopes including SVOM satellite are listed. In current version, some telescopes are provided as examples. More telescopes will be included.



# Coordinate follow-up observations



Open ToO Tools



To make an GRB revisit observation with SVOM (MXT/VT), BA needs to submit a ToO proposal by using the ToO tools. The proposal will be reviewed by the ToO scientist. Only the chosen one could be submitted to the OCG meeting.



# Coordinate follow-up observations

SUSS HOME NEWS OBSERVING WITH SVOM SVOM STATUS ADMIN LOG OUT

Tue, 18 Jun 2024 00:39:43 (UT) HMS DEG -5130.64 HOUR TO THE NEXT PASS OF S BAND STATION

PROPOSAL PREVIEW/SUBMIT

TOO\_TYPE: ToO-NOM

Proposal Body:

File Edit View Insert Format Tools Table

Q B I U Times 12pt

SOURCE\_ID\*: sb24030701\_sb24030701

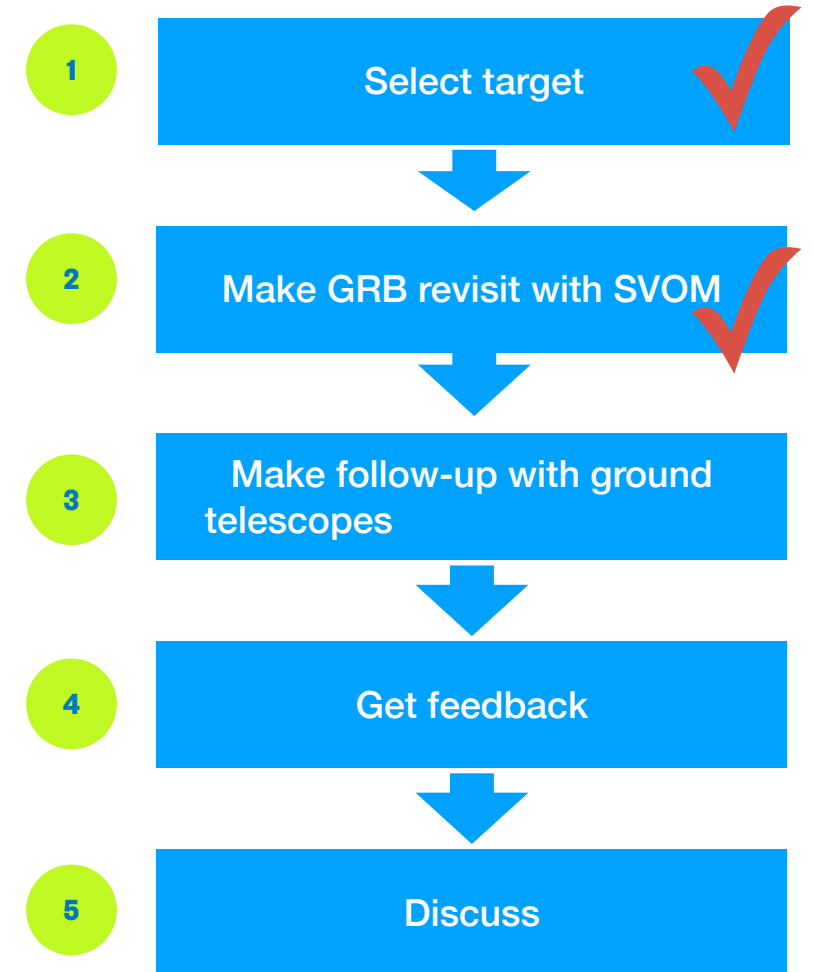
OBS\_TYPE\*: ToO-NOM-GRB

EVENT\_NAME: sb24030701

OBS\_COORDINATES: Coordinates(J2000) \*

RIGHT\_ASCENSION: 212.6552 Equals to : 14:10:37.2

Write a ToO proposal in the ToO tools



A too proposal edit page is opened automatically. Some parameters will be filled automatically. BA needs to complete the proposal and submit.



# Coordinate follow-up observations

TELESCOPE STATUS

Updated at: 2024-06-17T17:21:55 (BJT)

TELESCOPE	SITE	LONGITUDE	LATITUDE	LOCALTIME	VISIBILITY	START	END	WEATHER
SVOM								NO IMAGE
CGFT	Jilin	126.33046	43.824379	2024-06-17T17:21:55	Y	2024-06-17T11:19:00Z	2024-06-17T19:51:00Z	
XL216	Xinglong	117.57703	40.3930016	2024-06-17T17:21:55	Y	2024-06-17T11:42:00Z	2024-06-17T20:36:48Z	
LJT	Lijiang	100.03083	26.708889	2024-06-17T17:21:55	Y	2024-06-17T12:15:00Z	2024-06-17T20:57:38Z	
KAIT	Lick	121.634819	37.3433456	2024-06-17T17:21:55	Y	2024-06-17T11:16:00Z	2024-06-17T20:07:33Z	NO IMAGE

SELECT



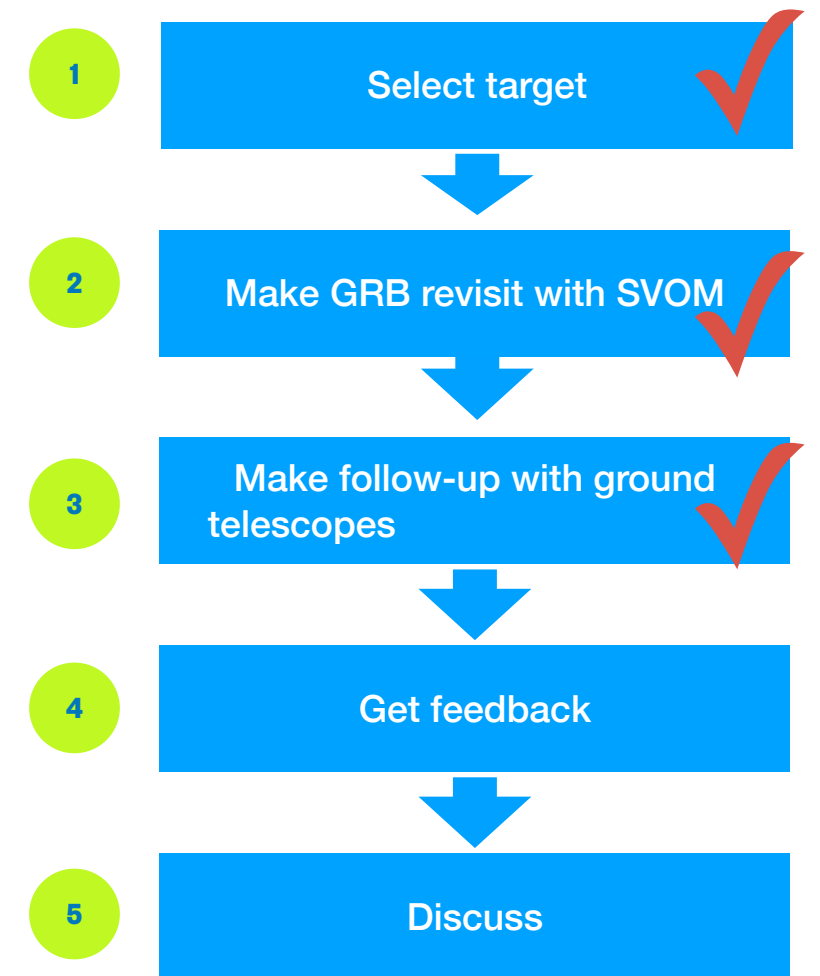
For ground telescopes, the day/night, altitude and weather information are given. They can help BA to decide which telescope to be used.



# Coordinate follow-up observations

The screenshot shows a web form for setting observation parameters. Key elements include:

- TELESCOPE:** A dropdown menu with 'CGFT' selected. A callout box labeled 'CGFT' points to this dropdown.
- QUICK SELECT:** A row of buttons for different telescopes: SVOM, CGFT, XL216, FGFT, LJ2.4M, and KAIT. A callout box labeled 'Settings with default exposure parameters' points to this row.
- OBSERVATION PARAMETERS:** Fields for REQUEST DATE (2024-06-17T21:39:29), SOURCE, RA (14:10:33.4), DEC (+29:41:58), TELESCOPE (CGFT), and OBSERVATION MODE (Photometry).
- Filter:** Checkboxes for 'All', 'g', 'r', and 'i', all of which are checked.
- Exposure Parameters:** Fields for 'Expdur' (30) and 'Frmcnt' (10) for each filter.
- Loop Settings:** 'Loopcnt' (1) and 'Loopmode' (Loop).
- Observer Information:** Fields for 'OBSERVER' (admin) and 'PHONE' (+86 181 2500 9770). A callout box labeled 'Observer information' points to these fields.
- SAVE PARAM:** A yellow button at the bottom. A callout box labeled 'Save parameter' points to this button.



The CGFT is an example of automatic telescope. For the automatic telescopes, the observation plan can be made in the BA tools. The telescopes starts observation immediately, if the target is visible.

The observation parameters (especially the exposure parameters) need to be filled by BA. The default values are given, but BA can change them based on the brightness of the source.





# Coordinate follow-up observations

FOLLOW-UP REQUEST

**GENERATE FOLLOW-UP REQUEST**

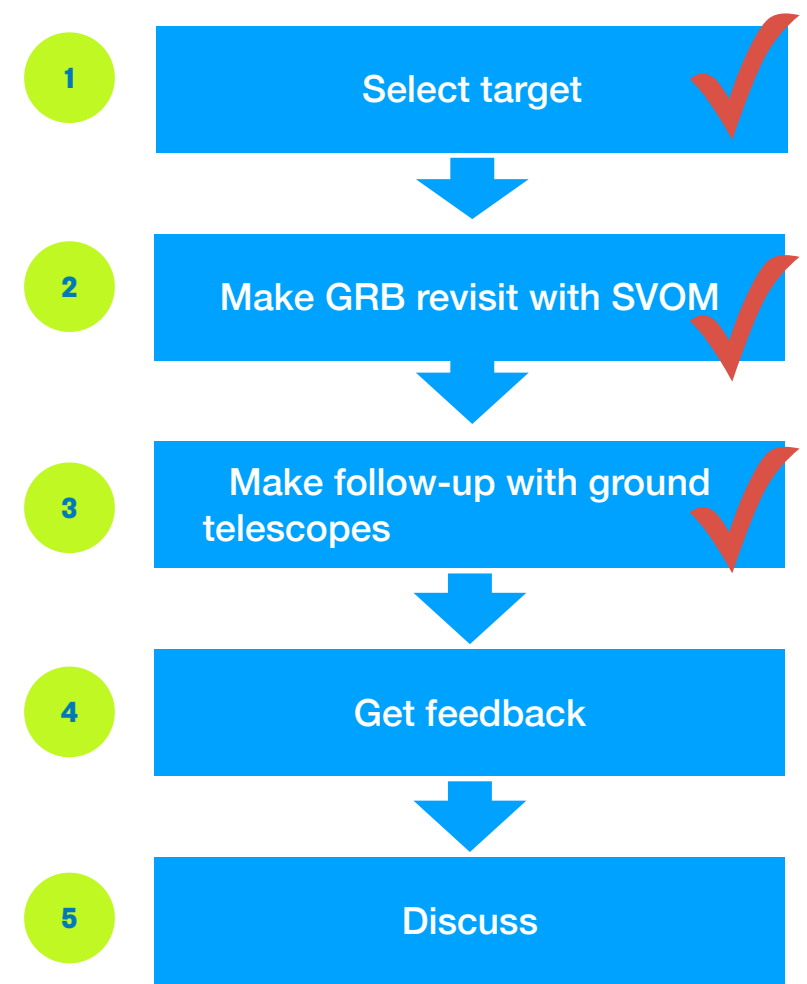
**Generate follow-up request**

FOLLOW-UP REQUEST CONTENT

```
{
  "Schema": {
    "SchemaName": null,
    "SchemaVersion": 2.1,
    "FITSVersion": "1.0",
    "SchemaExplanation": null
  },
  "MessageHeader": {
    "msg_sn": {
      "value": 5948,
      "FitsHeader": "MSG_SN",
      "type": "int",
      "mandatory": "Y",
      "note": ""
    },
    "msg_tim": {
      "value": "2024-06-17T13:41:35.947178",
      "FitsHeader": "MSG_TIM",
      "type": "string",
      "mandatory": "Y",
      "note": "UTC"
    },
    "msg_typ": {
      "value": "obs",
      "FitsHeader": "MSG_TYP",
      "type": "string",
      "mandatory": "Y",
      "note": "obs is for real obs msg, obs_test is for test obs msg"
    },
    "msg_src": {
      "value": "SVOM_BA_TOOLS",
      "FitsHeader": "MSG_SRC",
      "type": "string",
      "mandatory": "Y",
      "note": ""
    },
    "msg_crt": {
      "value": "VO",
      "FitsHeader": "MSG_CRT",
      "type": "string",
      "mandatory": "Y",
      "note": ""
    },
    "req_id": {
      "value": 113,
      "FitsHeader": "REQ_ID",
      "type": "int",
      "mandatory": "N",
      "note": ""
    },
    "msg_fits": {
      "value": "",
      "FitsHeader": "MSG_FITS",
      "type": "int",
      "mandatory": "Y",
      "note": "equal to FITSVersion"
    },
    "TargetInfo": {
      "obj_id": {
        "value": [null],
        "FitsHeader": "OBJ_ID",
        "type": "int",
        "mandatory": "Y",
        "note": "list"
      },
      "obj_name": {
        "value": [],
        "FitsHeader": "OBJ_NAME",
        "type": "string",
        "mandatory": "Y",
        "note": "list"
      },
      "obj_alias": {
        "value": [],
        "FitsHeader": "OBJ_ALI",
        "type": "string",
        "mandatory": "N",
        "note": "list"
      },
      "observer": {
        "value": [admin],
        "FitsHeader": "OBSERVER",
        "type": "string",
        "mandatory": "Y",
        "note": "list"
      },
      "obj_ra": {
        "value": [212.63902],
        "FitsHeader": "OBJ_RA",
        "type": "float",
        "mandatory": "Y",
        "note": "degree, list"
      },
      "obj_dec": {
        "value": [29.69939],
        "FitsHeader": "OBJ_DEC",
        "type": "float",
        "mandatory": "Y",
        "note": "degree, list"
      },
      "obj_epoch": {
        "value": [2000],
        "FitsHeader": "OBJ_EP",
        "type": "int",
        "mandatory": "Y",
        "note": "2000, list"
      },
      "obj_error": {
        "value": [None],
        "FitsHeader": "OBJ_ERR",
        "type": "string",
        "mandatory": "Y",
        "note": "ra_err/dec_err in arcsecond, list"
      },
      "TriggerInfo": {
        "trigger_name": {
          "value": "sb24030701",
          "FitsHeader": "TRIG_NAM",
          "type": "string",
          "mandatory": "Y",
          "note": ""
        },
        "trigger_alias": {
          "value": "",
          "FitsHeader": "TRIG_ALI",
          "type": "string",
          "mandatory": "N",
          "note": ""
        },
        "trigger_type_name": {
          "value": "Gamma-ray Burst",
          "FitsHeader": "TRIG_TYP",
          "type": "string",
          "mandatory": "Y",
          "note": ""
        },
        "trigger_telescope_name": {
          "value": "SVOM",
          "FitsHeader": "TRIG_TEL",
          "type": "string",
          "mandatory": "Y",
          "note": ""
        },
        "trigger_ra": {
          "value": 212.63902,
          "FitsHeader": "TRIG_RA",
          "type": "float",
          "mandatory": "Y",
          "note": "degree"
        },
        "trigger_dec": {
          "value": 29.69939,
          "FitsHeader": "TRIG_DEC",
          "type": "float",
          "mandatory": "Y",
          "note": "degree"
        },
        "trigger_err": {
          "value": 0.016666666666666666,
          "FitsHeader": "TRIG_ERR",
          "type": "float",
          "mandatory": "N",
          "note": "degree"
        }
      }
    }
  }
}
```

CONFIRM **SEND FOLLOW-UP REQUEST**

**Download request**



After completing the observation parameter of CGFT, BA need to generate the follow-up request. The parameters are automatically filled into the request. We recommend BA to check carefully before sending to the telescope.

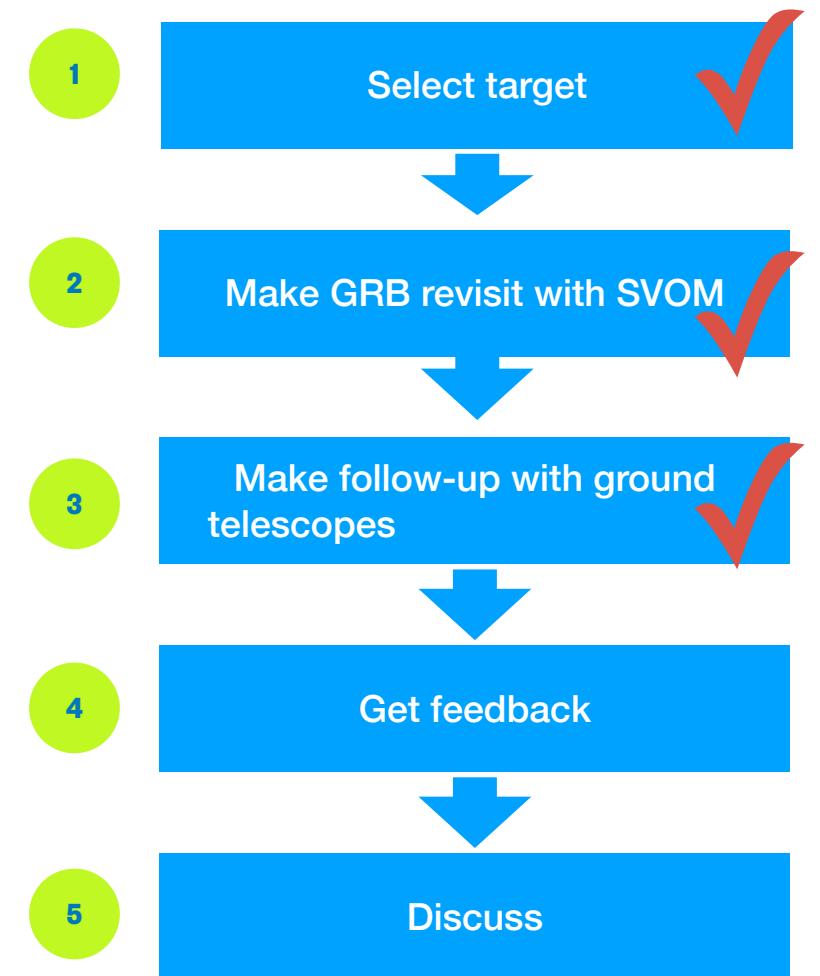


# Coordinate follow-up observations

The screenshot shows a web interface for coordinating follow-up observations. It is divided into several sections:

- EVENT PARAMETER:** Includes fields for SOURCE (sb24030701\_376), RA (14:10:36.6), DEC (+29:41:18), and ERR(ARC SEC) (3600).
- COUNTERPART PARAMETER:** Includes a field for FOLLOW-UP FOR COUNTERPART.
- CANDIDATE PARAMETER:** Includes a field for FOLLOW-UP FOR UNIDENTIFIED CANDIDATE.
- TELESCOPE:** Includes a "SELECT TELESCOPE" dropdown menu with options: SVOM, CGFT, XL210, LJ2.4M, FGFT, and KAIT (selected). A red box labeled "Contact information" points to the "CONTACT INFO" field which contains: "Contact person: Dr. ZHENG Weikang, Phone: +1 734 389 5532, Mattermost channel: TBD".
- OBSERVATION PARAMETERS:** Includes fields for REQUEST DATE (2024-06-23T12:17:36), SOURCE (sb24030701\_376), RA (14:10:36.6), DEC (+29:41:18), TELESCOPE (KAIT), OBSERVATION MODE (Photometry), SPECIAL REQUEST, OBSERVER (admin), and PHONE (+86 181 2500 9770). A "SAVE PARAM" button is at the bottom.
- FOLLOW-UP REQUEST:** Includes a "GENRATE FOLLOW-UP REQUEST" button.
- FOLLOW-UP REQUEST CONTENT:** Includes a download icon.

Red boxes and arrows highlight the "Select telescope" button and the "Contact information" field.



The KAIT telescope is an example of semi-automatic telescope. Please note that: the “semi-automatic” doesn’t mean to the telescope is semi-automatic controlled. It means from the BA point of view, the telescope only accepts the target. The telescope will decide how and when to preform the observation. The time delay maybe longer than the automatic telescope. So BA may need to discuss with the contact person of the telescope to confirm the observation strategy. The contact information is shown in the “TELESCOPE” card.

During the training, both can discuss in the mattermost channel “BA training”



# Coordinate follow-up observations

GRB 240307E

**EVENT PARAMETER**

FOLLOW-UP FOR TRIGGER

SOURCE: sb24030701\_376

RA: 14:10:36.6 DEC: +29:41:18

ERR(ARC SEC): 3600

**COUNTERPART PARAMETER**

FOLLOW-UP FOR COUNTERPART

**CANDIDATE PARAMETER**

FOLLOW-UP FOR UNIDENTIFIED CANDIDATE

**TELESCOPE**

SELECT TELESCOPE

TELESCOPE: LJ2.4M

CONTACT INFO: Contact person: Dr. MAO Jirong, Phone: TBD, Mattermost channel: TBD

QUICK SELECT:

SVOM CGFT XL216 **LJ2.4M** FGFT

KAIT

OBSERVATION PARAMETERS:

SOURCE \* sb24030701\_376 RA \* 14:10:36.6 DEC \* +29:41:18

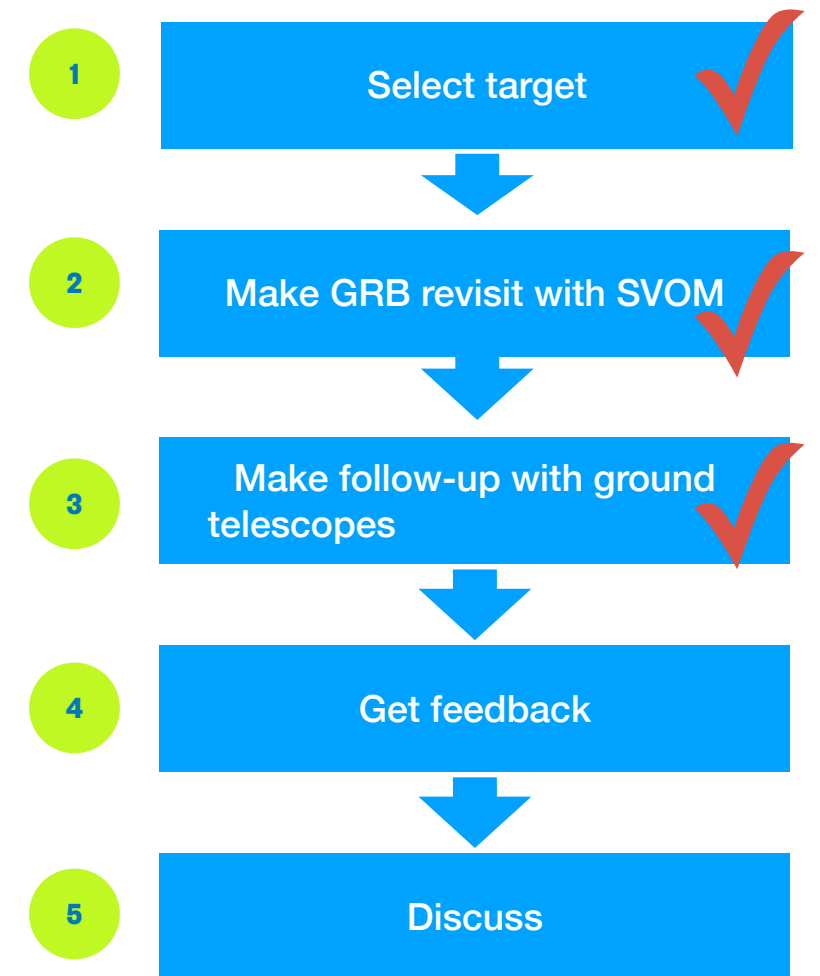
TELESCOPE \* LJ2.4M

OBSERVATION DESCRIPTION

OBSERVER \* admin PHONE \* +86 181 2500 9770

SAVE DESCRIPTION

Select telescope



The 2.4M telescope in Lijiang observatory is an example of manual telescope. Please note that: the “manual” doesn’t mean to the telescope is manual controlled. It only means, from the BA point of view, the telescope will not receive anything from the BA tools. BA need to directly contact the contact person of the telescope to apply the observation. The contact information can be found in the “TELESCOPE” card.

During the training, both can discuss in the mattermost channel “BA training”.

During the operation, although it is not mandatory, we still recommend BA to write the observation description in the BA tools.



# Coordinate follow-up observations

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION			
TELESCOPE	OBSERVATION TIME	OBS ID	FOLLOW-UP REQUEST ID	COUNTERPART	REQUEST INFO	DATA	ACTION
CGFT		113			<a href="#">f'Schema':f'SchemaNa...</a>	N	UPLOAD DATA
CGFT		106			<a href="#">f'Schema':f'SchemaNa...</a>	N	UPLOAD DATA
VT-XBAND						Y	DOWNLOAD DATA
VT-VHF						Y	DOWNLOAD DATA
SVOM		94		sb24030701_376		N	UPLOAD DATA
CGFT						Y	DOWNLOAD DATA

Selected Columns: TELESCOPE, OBSERVATION TIME, OBS ID (+5 others)

Total: 1 < 1 > Items/Page: 20

Observation time, observation ID

Follow-up request ID



After sending the follow-up request, it can be checked in the “OBSERVATION” tab.

For some automatic telescopes, the observation status could be sent back to the BA tools automatically, which will be shown in this tab. But this function highly relies on the telescope sides. So BA may need to contact the contact person to check the status.



# Coordinate follow-up observations

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION			
TELESCOPE	OBSERVATION TIME	OBS ID	FOLLOW-UP REQUEST ID	COUNTERPART	REQUEST INFO	DATA	ACTION
CGFT		113			[Schema].[SchemaNa-]	N	UPLOAD DATA -
CGFT		106			[Schema].[SchemaNa-]	N	UPLOAD DATA -
VT-XBAND						Y	DOWNLOAD DATA -
VT-VHF						Y	DOWNLOAD DATA -
SVOM		94		sb24030701_376		N	UPLOAD DATA -
CGFT							DOWNLOAD DATA -

Selected Columns: TELESCOPE, OBSERVATION TIME, OBS ID (+5 others)

Items/Page: 20

**Make a post** (callout box pointing to the 'Items/Page' dropdown)



COMMENT

TITLE: \*

CONTENT: \*

Please enter content...

**Editor** (callout box pointing to the content area)

POST

We highly recommend all BAs to take note, make comment and discuss in the BA tools. In any page of BA tools, BA can find a button to start editing the notes. All the notes will be listed in the “DISCUSSION” tab.





# Coordinate follow-up observations

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION
TITLE	ABOUT	TIME	BA	ACTION
No data available				

Selected Columns: TITLE ABOUT TIME (+2 others)

Total: 0 Items/Page: 20

“DISCUSSION”



To check the notes. BA can find them in the “DISCUSSION” tab.



The CSC BA tools provide supports for BA to prepare notices of optical instrument.

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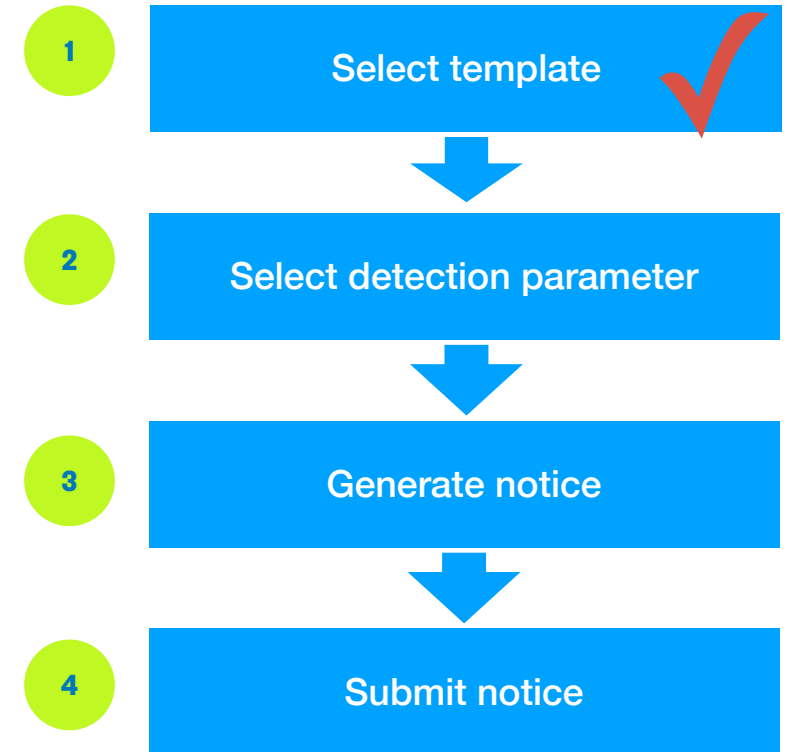
## **GRB: GCN notice**

For optical instrument, BA is responsible for the accuracy of coordinates, time and detection information in the notice. BA needs to check the information in the BA tools, fill the parameters into the GCN notice template.



# GCN notice

The screenshot shows a table with columns: EVENT, NOTICE & CIRCULAR, OBSERVATION, COUNTERPART, and DISCUSSION. The COUNTERPART column is highlighted in blue. Below the table, there is a 'Selected Columns' section with buttons for COUNTERPART, BEST DETECTION, CL1, and (+6 others). A red callout box labeled 'open notice page' points to the 'FOLLOW UP' button in the table. Below the table, there is a row of buttons for different notice templates: N2F CGFT DETECTION, N2F CGFT UPPERLIMIT, N2F GWAC DETECTION, N2F GWAC UPPERLIMIT, N2V VT DETECTION, and N2V VT UPPERLIMIT. A red callout box labeled 'select notice template' points to the 'N2F CGFT DETECTION' button. To the right, a yellow 'SELECT TEMPLATE' button is shown with a red callout box labeled 'select' pointing to it.



To open the notice preparation page, select the “PREPARE NOTICE” action.

In the notice preparation page, we provide several GCN notice templates. Each template is dedicated for a telescope and a given scenario.

For example, the “N2F CGFT DETECTION” template is for a counterpart detected by CGFT.



# GCN notice

**COUNTERPART PARAMETER** ✓

FOLLOW-UP FOR COUNTERPART

SOURCE: CL1\_18779\_CGFT

RA: 14:10:37.0 DEC: +29:41:25

ERR(ARC SEC): 1

open CL1 list

COUNTERPART VISUALIZATION

sb24030701\_376

CL1\_18779\_CGFT

RA: 14:10:37.0  
DEC: +29:41:25  
ERR (ARC SEC): 1

ALADIN

DOWNLOAD LC

LC ANALYSIS

CL1\_18782\_CGFT

RA: 14:10:36.6  
DEC: +29:41:18  
ERR (ARC SEC): 1

ALADIN

DOWNLOAD LC

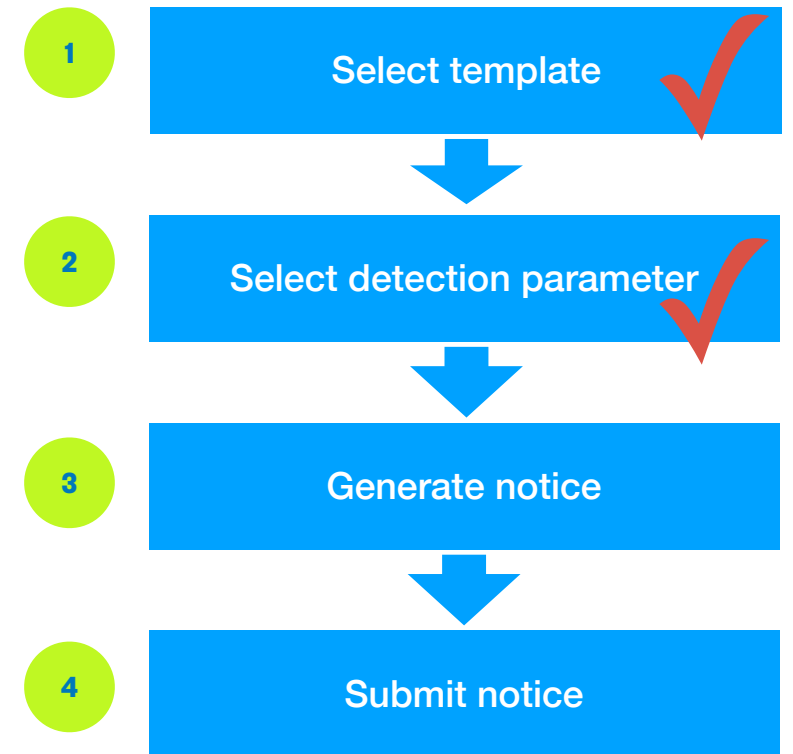
LC ANALYSIS

CL1\_18783\_CGFT

RA: 14:10:37.1  
DEC: +29:41:22  
ERR (ARC SEC): 1

ALADIN

select a CL1 to fill the parameter



After selecting the “N2F CGFT DETECTION” template, a “COUNTERPART PARAMETER” is shown up. BA needs to choose the best detection to fill in the template.



# GCN notice

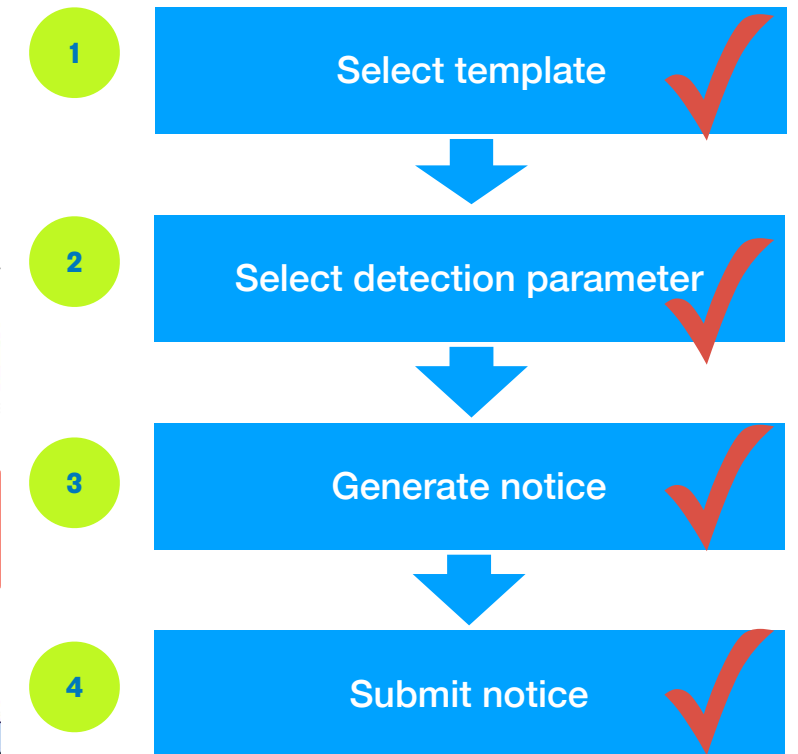
NOTICE  generate notice

NOTICE CONTENT

```
<Who>
  <AuthorIVORN></AuthorIVORN>
  <Date></Date>
</Who>
<What>
  <Param name="Packet_Type" value="" ucd="meta.id" dataType="int"/>
  <Param name="msg_level" value="N2F" ucd="meta.code.class"/>
  <Param name="msg_num" value="" ucd="meta.id" dataType="int"/>
  <Param name="burst_id" value="sb24030701" ucd="meta.id"/>
  <Param name="instrument" value="CGFT" ucd="instr"/>
  <Param name="ExpoStart_TJD" value="20376" unit="days" ucd="time"/>
  <Param name="ExpoStart_SOD" value="4386.0" unit="sec" ucd="time"/>
  <Param name="Upperlimit" value="N" unit="" ucd=""/>
</What>
<WhereWhen>
  <ObsDataLocation>
    <ObservatoryLocation id="GEOLUN"/>
    <ObservationLocation>
      <AstroCoordSystem id="UTC-FK5-GEO"/>
      <AstroCoords coord_system_id="UTC-FK5-GEO">
        <Time unit="s">
```

CONFIRM  confirm and submit

download file for checking



The information (time, coordinates, magnitude etc. ) from the selected CL1 will be filled automatically into the notice. The content is not editable.

Note: during the operation, after sending the notice, the notice will not be reviewed again by anyone else. So BA must be very careful for submitting the notice.





The CSC BA tools provide supports for BA to prepare circular of optical instrument.

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## **GRB: GCN circular**

For optical instrument, the BA is responsible for the accuracy of information in the circular and submitting the circular. BA needs to have his/her personal account in the GCN.



# GCN circular

PREPARE CIRCULAR

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION
TITLE	ABOUT	TIME	BA	ACTION
No data available				

Total: 0 Items/Page: 20

Selected Columns: TITLE ABOUT TIME (+2 others)

TEMPLATE:

CGFT: OPTICAL DETECTION CGFT: OPTICAL UPPER LIMIT VT: OPTICAL DETECTION VT: OPTICAL UPPER LIMIT VT: OPTICAL CANDIDATES

SELECT TEMPLATE

select circular template

select template

1

Select template ✓

2

Fill parameter

3

Generate circular

4

Save circular

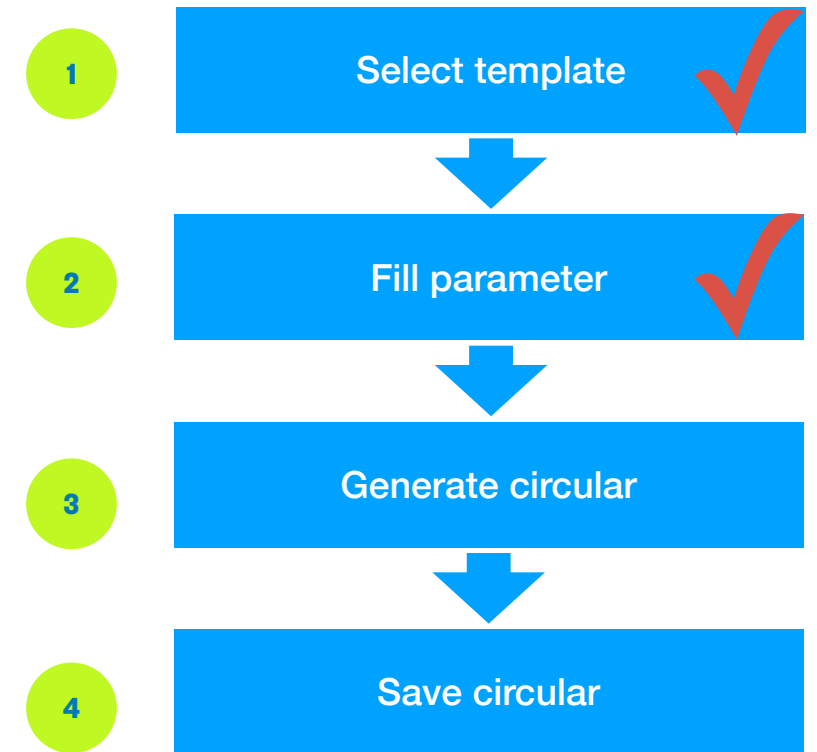
To open the circular preparation page, select the “PREPARE Circular” action.

We provide several GCN circular templates. Each template is dedicated for a telescope and a given scenario.

For example, the “CGFT OPTICAL DETECTION” template is for the successful detections made by CGFT.



# GCN circular



SUBJECT:

**AUTHOR**  
AUTHOR LIST OF CIRCULAR  
Liping Xin (NAOC), Chao Wu (NAOC), Xuhui Han (NAOC), Xiaomeng Lu (NAOC), Damien Turpin (CEA), etc.

**COUNTERPART PARAMETER**  
SELECTED CL1 FOR COUNTERPART

**INSTRUMENT**  
INSTRUMENT DESCRIPTION

CIRCULAR

CIRCULAR CONTENT

author list

subject

counterpart parameter

instrument parameter

For different template, the content are different. For the successful detections of CGFT, the template shall contain 6 parts: SUBJECT (title), AUTHOR LIST, DESCRIPTION OF THE OBSERVATION, DESCRIPTION OF THE DETECTION, ADDITIONAL DESCRIPTION and DESCRIPTION OF THE INSTRUMENT (optional).

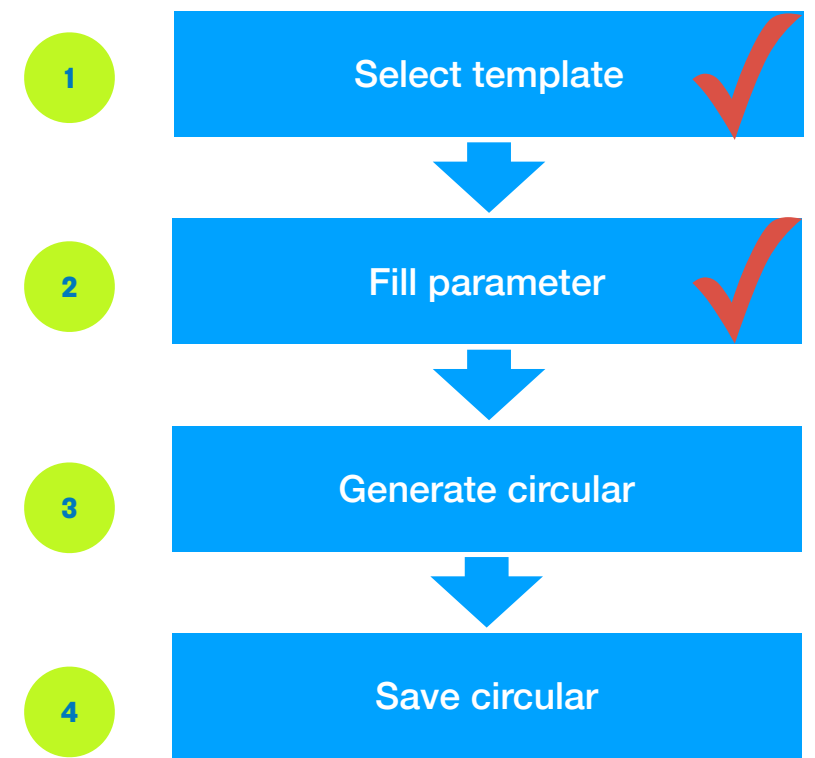


# GCN circular

The screenshot shows the 'AUTHOR' selection panel with a list of names: LIPING XIN (NAOC), CHAO WU (NAOC), XUHUI HAN (NAOC), XIAOMENG LU (NAOC), DAMIEN TURPIN (CEA), ZHENWEI LI (CHO), PINPIN ZHANG (NAOC), RUOSONG ZHANG (NAOC), YULEI QIU (NAOC), YOU LV (CHO), JING WANG(GXU), CORDIER BERTRAND (CEA), and JIANYAN WEI (NAOC). A red callout box points to the 'edit author list' text.

The 'COUNTERPRT VISUALIZATION' panel shows three light curve plots for CL1\_18779\_CGFT, CL1\_18782\_CGFT, and CL1\_18783\_CGFT. A red callout box points to the first plot with the text 'multiple detections (CL1s) can be selected'.

The 'Description of Instrument' panel shows a form with 'INSTRUMENT: CGFT' and an 'ADD' button. A red callout box points to the 'DESCRIPTION OF THE INSTRUMENT' field with the text 'instrument description is optional'.



The author list can be edited.

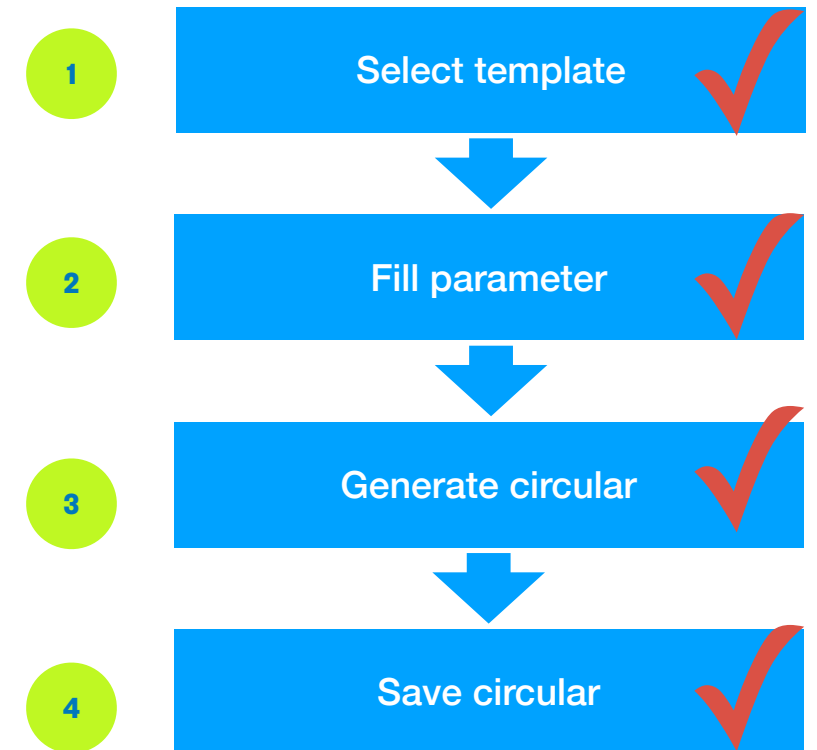
For circulars, multiple CL1s can be selected by BA to give more detailed information, ie magnitudes in several bands.

The observation status is automatically filled.



# GCN circular

The screenshot shows the GCN circular generation interface. At the top, there are buttons for "LOAD LAST VERSION" and "GENERATE CIRCULAR". A red callout box labeled "Generate notice" points to the "GENERATE CIRCULAR" button. Below this is the "CIRCULAR CONTENT" section, which contains text about a GRB event. A red callout box labeled "content can be edited" points to the text area. To the right of the text area is a "download text file" button, with a red callout box pointing to it. At the bottom left, there is a "CONFIRM" checkbox and a "SAVE CIRCULAR" button. A red callout box labeled "Save circular content" points to the "SAVE CIRCULAR" button.



Please note that, although most of parameters are automatically filled, BA still need to fill some parameters by hands and check carefully the content of circular. The content is editable.

The BA needs to submit the circular to GCN using his/her personal account. But BA must save the circular by using "SAVE CIRCULAR", so the BA tools can record the circular. Otherwise, the circular content will be lost.





The CSC BA tools provide a forum tools allowing BA to make discussion inside the tools.

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## Discussion

It is important to record the note and discussion history for the future researches and publications of the GRBs. So we highly recommend the BAs to take notes in the BA tools.



# Discussion

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION			
TELESCOPE	OBSERVATION TIME	OBS ID	FOLLOW-UP REQUEST ID	COUNTERPART	REQUEST INFO	DATA	ACTION
CGFT		113			/Schema"/SchemaNa	N	UPLOAD DATA -
CGFT		106			/Schema"/SchemaNa	N	UPLOAD DATA -
VT-XBAND						Y	DOWNLOAD DATA -
VT-VHF						Y	DOWNLOAD DATA -
SVOM		94		sb24030701_376		N	UPLOAD DATA -
CGFT						Y	DOWNLOAD DATA -

Selected Columns: TELESCOPE, OBSERVATION TIME, OBS ID (+5 others)

Total: 1 < 1 > 20

**Make a post**

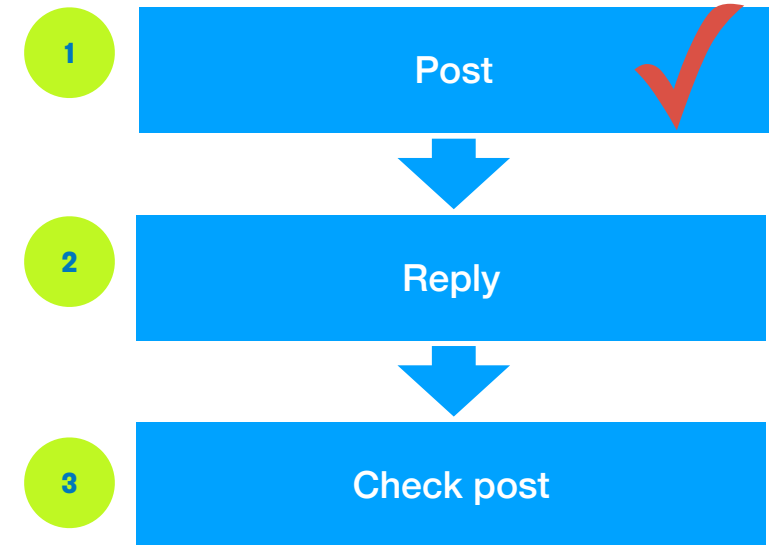
COMMENT

TITLE: \*

CONTENT: \*

**Editor**

POST



To simplify the process of taking notes in the BA tools, BA can leave message in every page of the BA tools. BA can find a button to start editing the notes. All the notes will be listed in the "DISCUSSION" tab.



# Discussion

TITLE	ABOUT	TIME	BA	ACTION
test post	EVENT	2024-06-18T03:59:01Z	admin	REPLY -

Contents: test post for BA training

Total: 1 reply 1 / 20

Reply

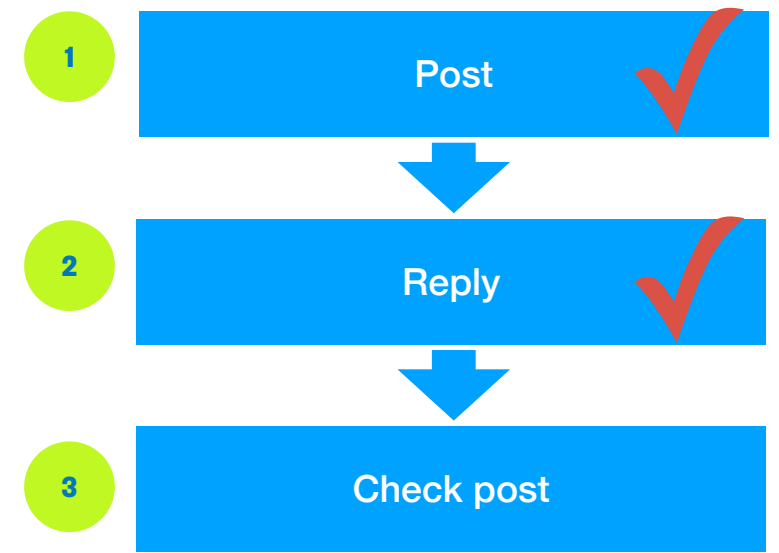
TITLE	ABOUT	TIME	BA
test post	EVENT	2024-06-18T03:59:01Z	admin

REPLY

Please enter content...

reply window

POST



All BAs can reply the post.



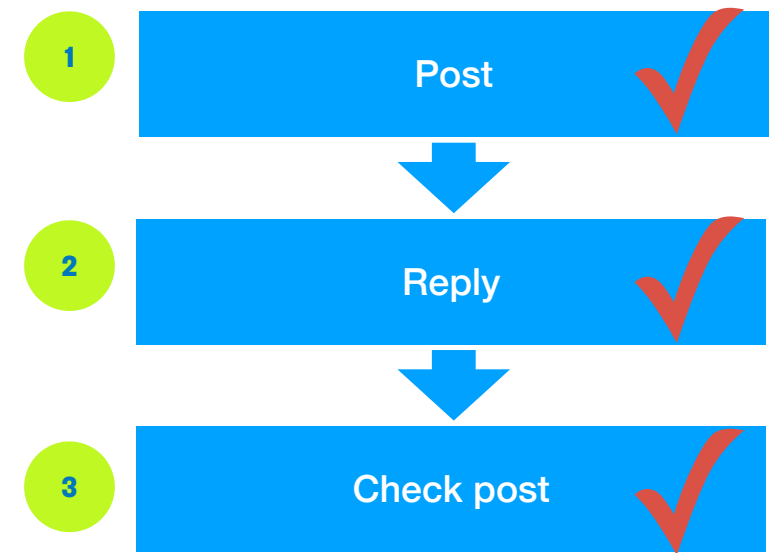
# Discussion

EVENT	NOTICE & CIRCULAR	OBSERVATION	COUNTERPART	DISCUSSION
TITLE	ABOUT	TIME	BA	ACTION
test post	EVENT	2024-06-18T03:59:01Z	admin	REPLY -
Contents: test post for BA training				

Selected Columns: TITLE ABOUT TIME (+2 others)

Total: 1 < 1 > Items/Page: 20

post list



With all the posts and replies, scientists can check the discussion history for this GRB



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## GW tiling

The CSC BA tools provide the functions for BAs to perform the optical counterpart identification, follow-up observation coordination and circular preparation.

The procedures are similar with them for GRBs. But since the very large sky area of the GW, the more difficulties for BAs to do their jobs.

In current version of the BA tools, we provide the useful information for BAs to deal with the complications. The optimization is still on going.



To be continue.....

Thanks for your patience!