

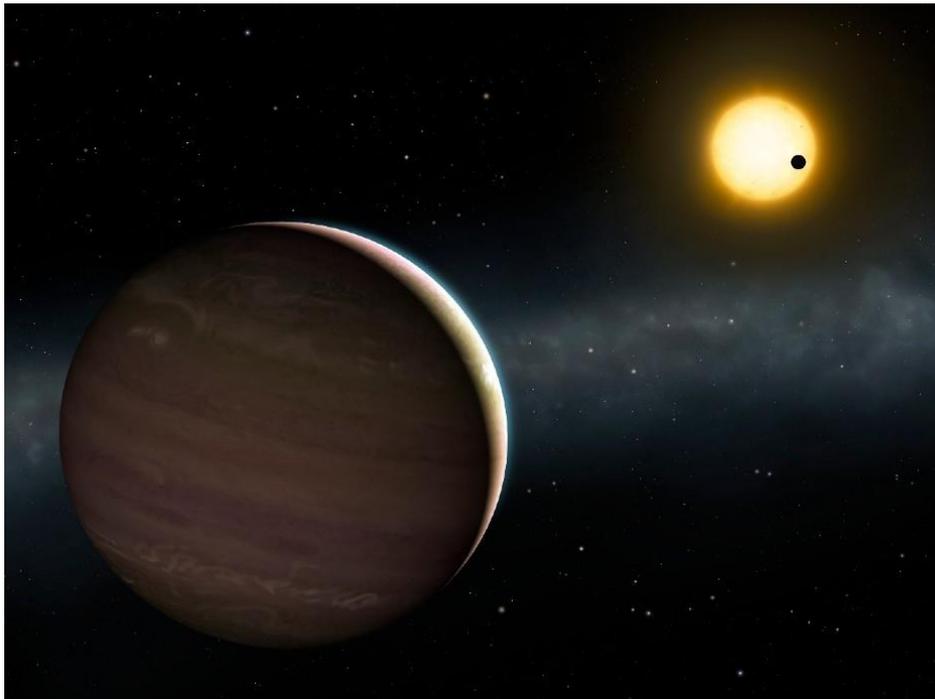


Association Française
d'**Astronomie**



UNISTELLAR

**« Aux astres citoyens! »
Observation de WASP 148 avec un eVscope
nuit du 26 au 27 juin 2021**



<https://unistellaroptycs.com/citizen-science/exoplanets-transit-predictions/>

Unistellar Citizen Science

Exoplanet transit predictions

Home / Citizen Science / Exoplanet transit predictions

Find an exoplanet transit to observe!
Select your region below and choose an event that interests you.

So far, all of our predictions involve Jupiter-size gas giant exoplanets. Most of them orbit their stars in less than 10 Earth days, making them "Hot Jupiters" because their stars heat them to temperatures over 1600 °C (2000 °F).

Target names starting with "TOI" are new *candidate exoplanets* from NASA's TESS space telescope that either need more observations to be confirmed as real exoplanets (and not false signals) or to better measure their orbits. Your observations can help astronomers do this! (TOI stands for TESS Object of Interest.)

Predictions Table explained

- The **Link** will auto-populate the event's observing settings into the Unistellar app's "Exoplanet transits" menu (in the Science tab).
 - **Note that these links will only work on your smartphone/tablet with the Unistellar app installed.**
- **Finder** is an image of the target field of view (your live view may be rotated by comparison).
- **Date** is the observation start date in UTC (Universal Time)
- **Local** is the observation start time in the timezone of your device's browser.
- eVscope settings are in **Exp** (exposure time in milliseconds), **Gain** (in decibels), **Cad** (cadence in milliseconds), **Ra** (right ascension), & **Dec** (declination).
- Click on a row to display the event's **visibility map**. Map legend:
 - **Blue stars & shading** = full visibility (you can observe the entire event)
 - **Yellow triangles** = full visibility but some tracking difficulty (when target altitude > 70 degrees)
 - **Orange diamonds** = partial visibility; you may miss the start or end of the event
 - **Grey circles** = no visibility (either the target is not up or it is too close to daytime)

*** AFTER OBSERVING, please submit this [REPORT FORM](#) so we know to process your data. ***

Include questions and data requests in the form's comments box or email them to citizenscience@unistellaroptycs.com.

Select your continent :

Europe

 Export selection to your calendar

June 2021							Link [?]	Finder	Name	Date ^{UTC}	Start ^{UTC}	End ^{UTC}	Local [?]	Ra	Dec	Exp.	Gain	Cad.
SUN	MON	TUE	WED	THU	FRI	SAT			TOI 2574.01	26 May	22:34	02:18	27 May 00:34	15h 31m 14s	+79° 16' 02"	3970	36	3970
30	31	01	02	03	04	05	<input type="checkbox"/>		HAT-P-27b	02 Jun	21:51	01:02	02 Jun 23:51	14h 51m 04s	+5° 56' 51"	3970	25	3970
SUN	MON	TUE	WED	THU	FRI	SAT	<input type="checkbox"/>		TOI 2574.01	04 Jun	21:42	01:26	04 Jun 23:42	15h 31m 14s	+79° 16' 02"	3970	36	3970
06	07	08	09	10	11	12	<input type="checkbox"/>		TOI 2574.01	13 Jun	20:50	00:33	13 Jun 22:50	15h 31m 14s	+79° 16' 02"	3970	36	3970
SUN	MON	TUE	WED	THU	FRI	SAT	<input type="checkbox"/>		WASP-148b	26 Jun	21:10	03:15	26 Jun 23:10	16h 56m 31s	+44° 18' 09"	3970	25	3970
13	14	15	16	17	18	19	<input type="checkbox"/>		Qatar-1b	30 Jun	22:19	01:29	01 Jul 00:19	20h 13m 32s	+65° 09' 43"	3970	32	3970
SUN	MON	TUE	WED	THU	FRI	SAT												
20	21	22	23	24	25	26	■ WASP-148b - 23:10											
SUN	MON	TUE	WED	THU	FRI	SAT												
27	28	29	30	01	02	03												

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SUN	MON	TUE	WED	THU	FRI	SAT	■ WASP-148b - 23:10												
20	21	22	23	24	25	26													
SUN	MON	TUE	WED	THU	FRI	SAT													
27	28	29	30	01	02	03													

Préparation et mise en station

Vérifier l'espace mémoire et votre batterie

Mise en température - tube ouvert : 30 minutes environ

Mise à niveau du trepied

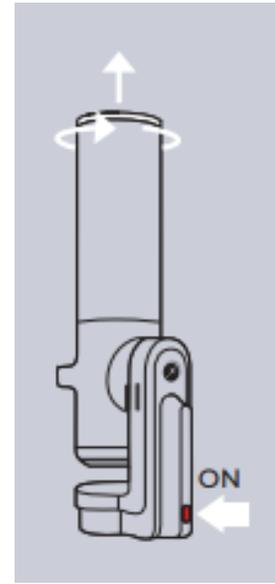
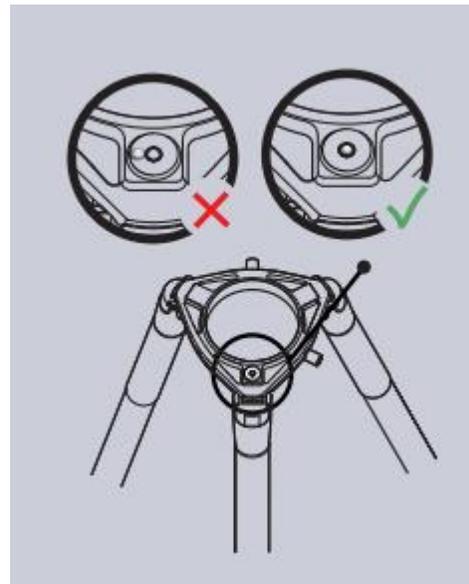
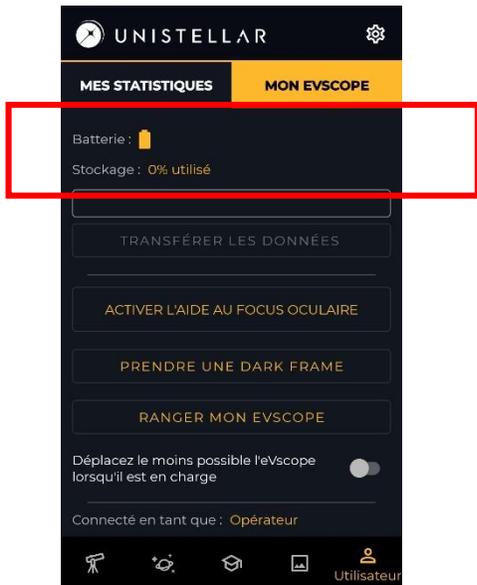
Vérifier que votre angle de vue sera correcte tout au long de l'observation

Démarrage de l'application Unistellar sur le smartphone (L'eVScope utilise les données GPS du smartphone)

Démarrage de l'eVscope

Connexion du smartphone au wifi de l'eVscope (réseau nommé « eVscope-xxxxxx »)

Mise au point (masque Bahtinov et/ou alignement miroir): **Live "Bien installer et utiliser son eVscope"** 

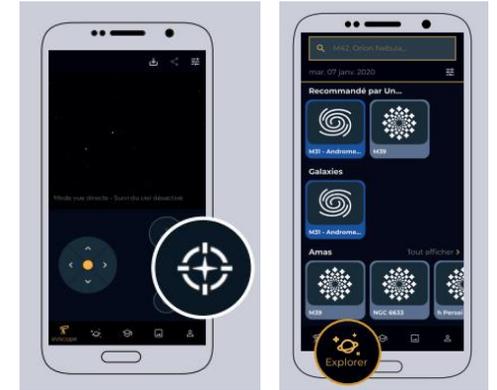


Observation

Inclinez l'eVscope d'environ 45° en utilisant le joystick de l'application

Détection automatique de champ -> « Mode vue directe - Suivi du ciel activé »

Allez sur l'onglet **Explorer** de votre application: choisir la 1^{ère} étoile appuyez sur le bouton **GoTo**



1^{ère} Méthode : utilisez le **deeplink**

[unistellar://science/transit?ra=254.13058&dec=44.30265&c=3970&et=3970&g=25&d=1800&t=1624747380000](https://unistellar.com/science/transit?ra=254.13058&dec=44.30265&c=3970&et=3970&g=25&d=1800&t=1624747380000)

Link	Finder	Name	Date ^{UTC}	Start ^{UTC}	End ^{UTC}	Local [⊙]	Ra	Dec	Exp.	Gain	Cad.
		WASP-148b	26 Jun	21:10	03:15	26 Jun 23:10	16h 56m 31s	+44° 18' 09"	3970	25	3970

Cible

16h 56m 31s

Dec
+44° 18' 09"

GO TO

Enregistrement

Temps d'exposition
3970 ms

Cadence
3970 ms

Gain
25

unistellar://science/transit?ra=254.13058&dec=44.30265&c=3970&et=3970&g=25&d=1800&t=1624747380000

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◀ June 2021 ▶

Link [Ⓜ]	Finder	Name	Date ^{UTC}	Start ^{UTC}	End ^{UTC}	Local [Ⓜ]	Ra	Dec	Exp.	Gain	Cad.
<input type="checkbox"/>		 WASP-148b	26 Jun	21:10	03:15	26 Jun 23:10	16h 56m 31s	+44° 18' 09"	3970	25	3970

Map showing transit visibility across Europe and Africa. A red circle highlights the target location in France. A yellow bar at the bottom indicates the transit time: **WASP-148b - 23:10**. A "Need Help?" button is visible in the bottom right corner.

unistellar://science/transit?ra=254.13058&dec=44.30265&c=3970&et=3970&g=25&d=1800&t=1624747380000

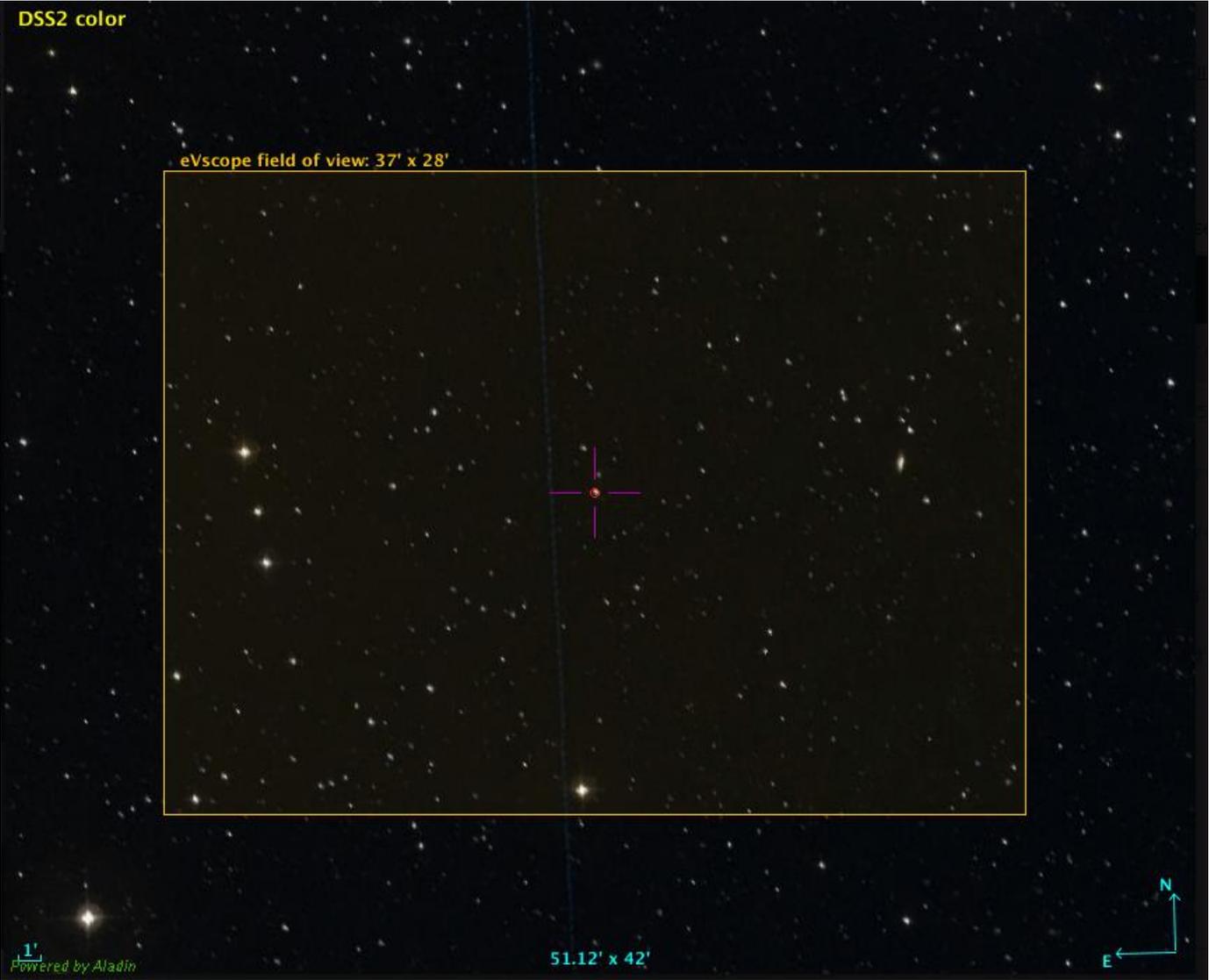
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June 2021

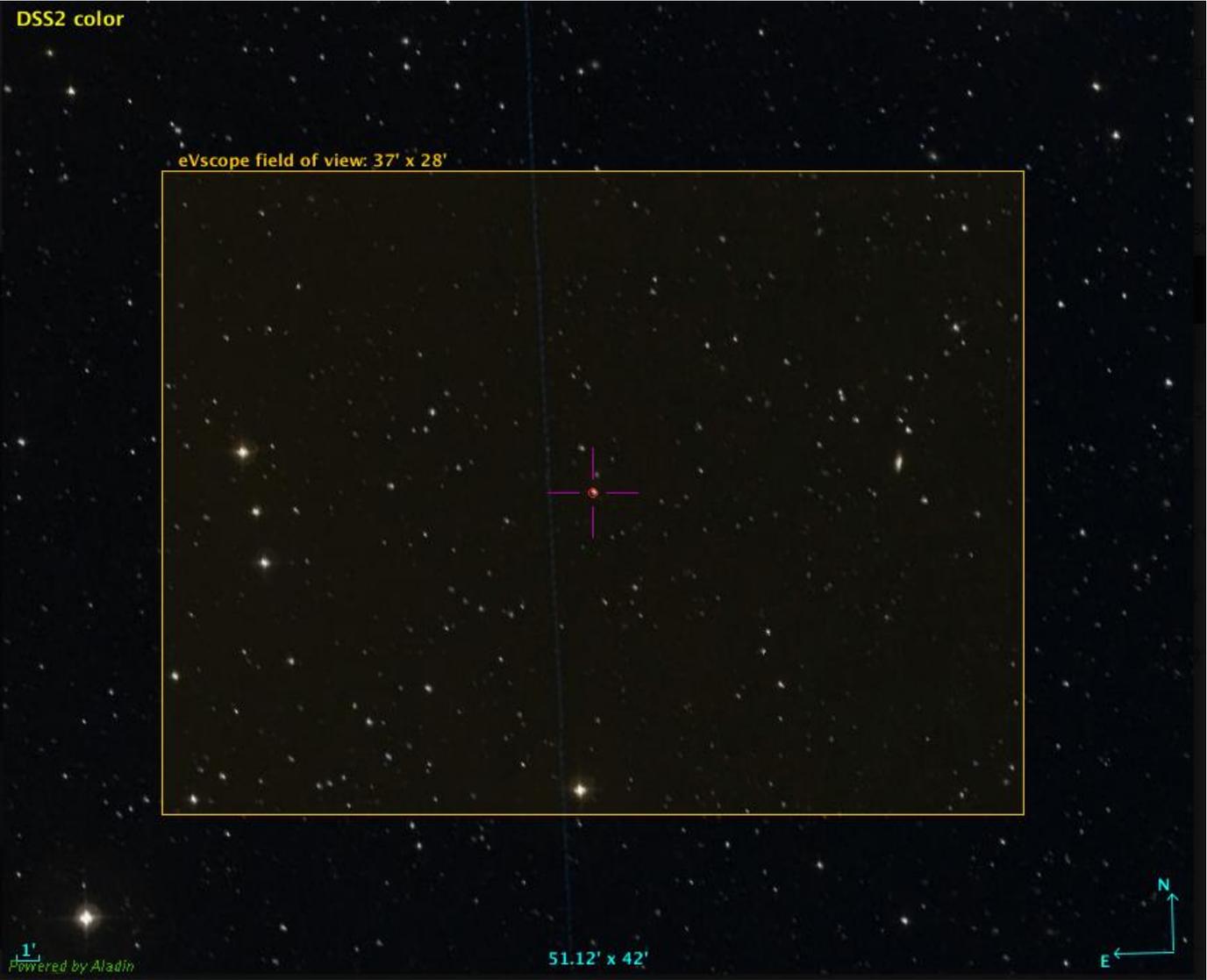
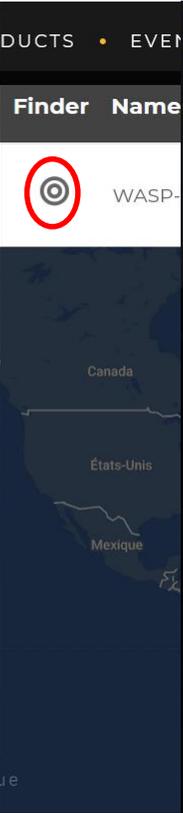
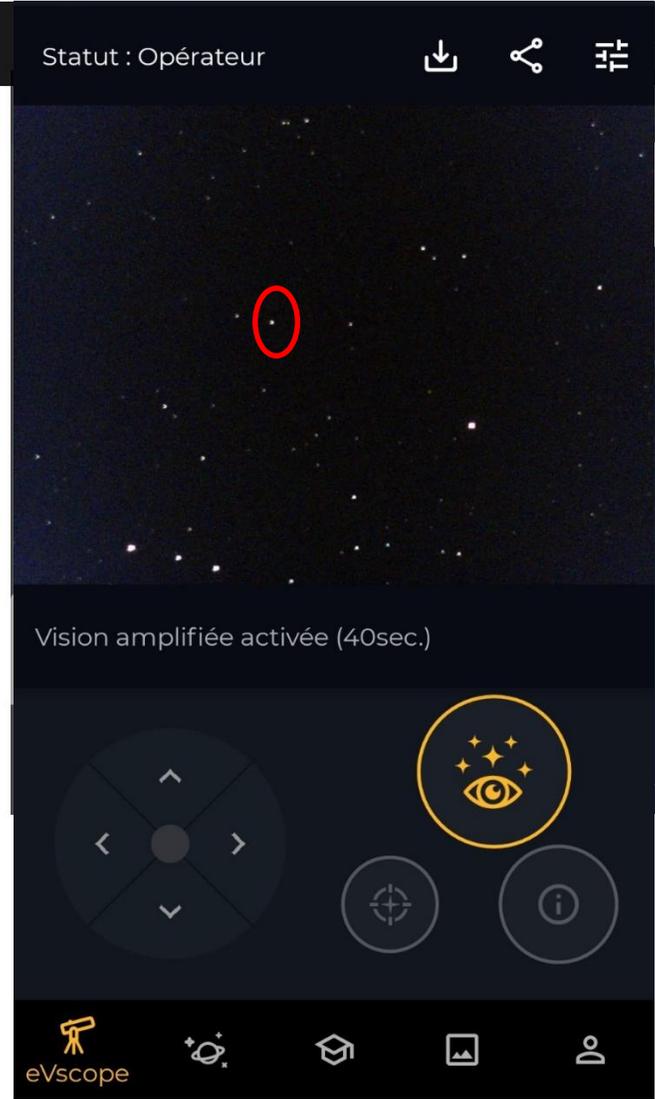
SUN	MON	TUE	WED	THU	FRI	SAT
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20	21	22	23	24	25	26
■ WASP-148b - 23:10						
SUN	MON	TUE	WED	THU	FRI	SAT
27	28	29	30	01	02	03

Link[®] Finder Name

WASP-



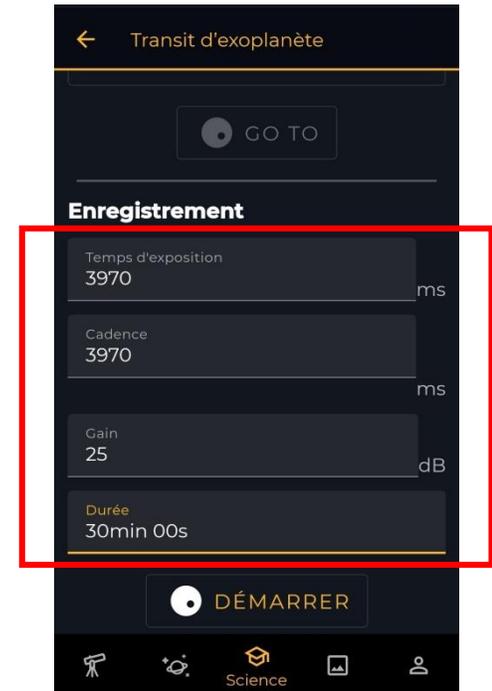
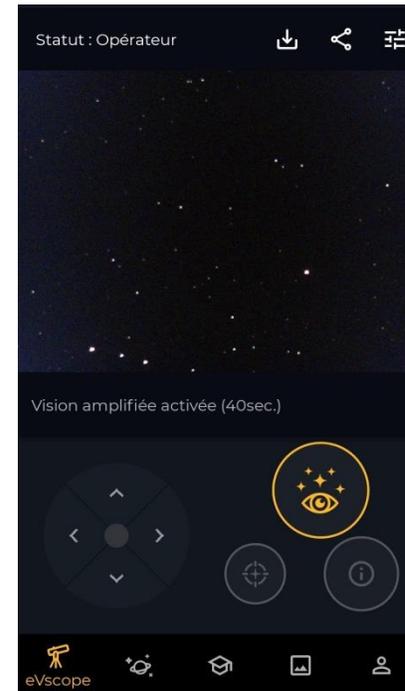
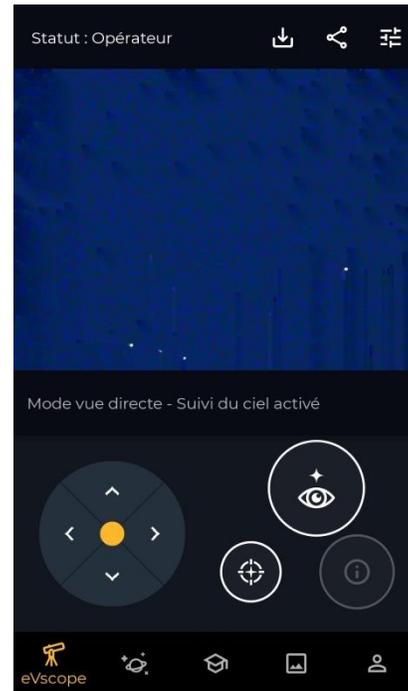
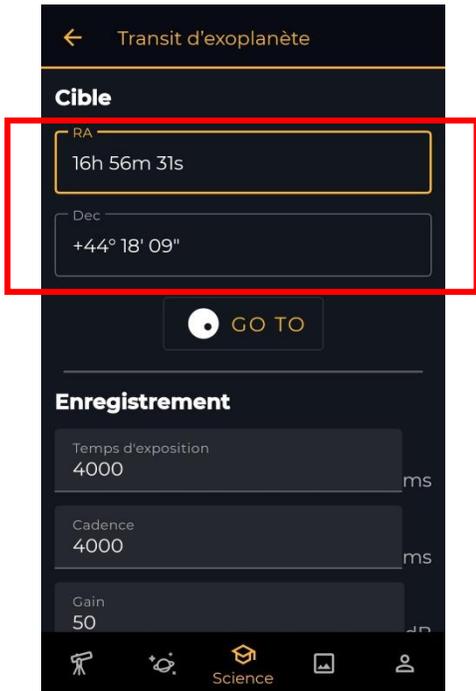
unistellar://science/transit?ra=254.13058&dec=44.30265&c=3970&et=3970&g=25&d=1800&t=1624747380000



2^{de} Méthode (manuelle):

Allez sur l'onglet **Science** de votre application:

Rentrez les coordonnées puis **GoTo** -> puis **Vision Amplifiée** -> puis rentrez les paramètres



Avant de commencer l'observation, pensez à faire une image de calibration **Dark Frame** (image noire)

Indiquer une durée de **02min00s** (30 images seront sauvegardées)

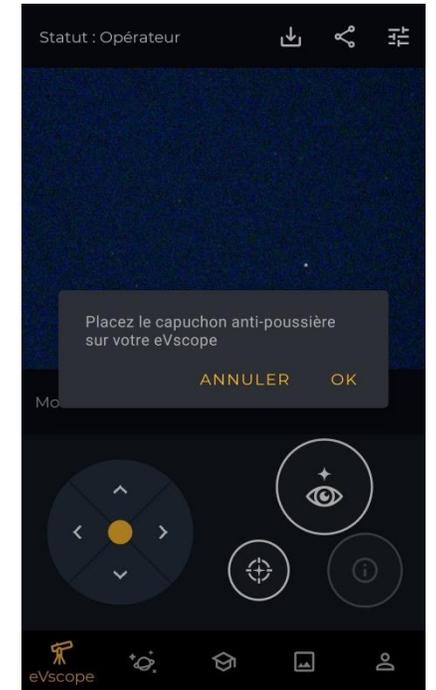
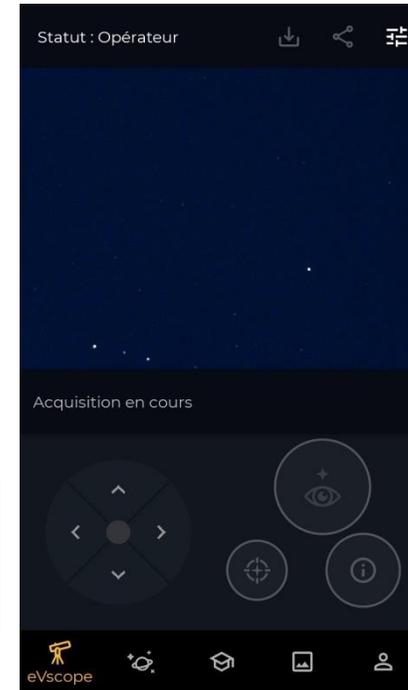
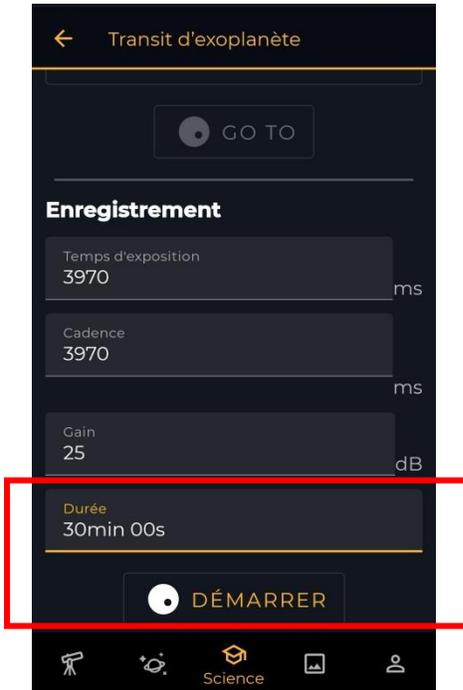
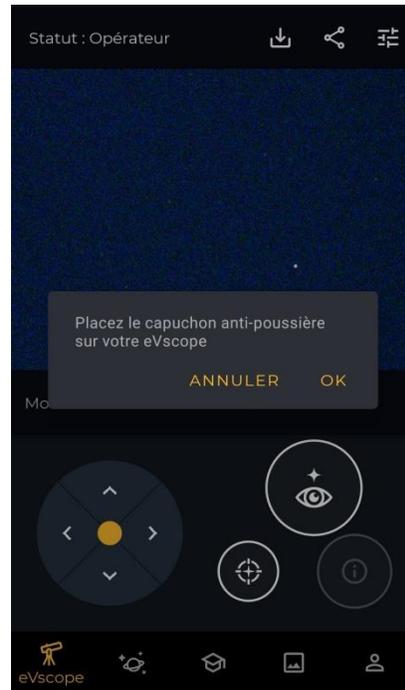
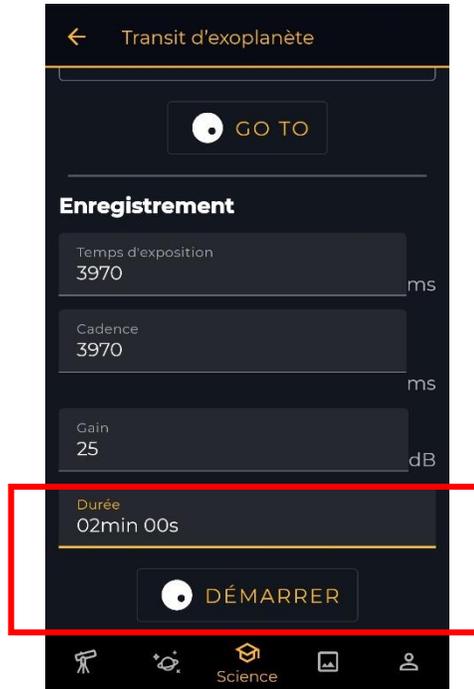
Placez le **capuchon** anti-poussière

Appuyez sur **Démarrer**

Retirez le **capuchon** anti-poussière

Vérifier à nouveau le champ (FOV)

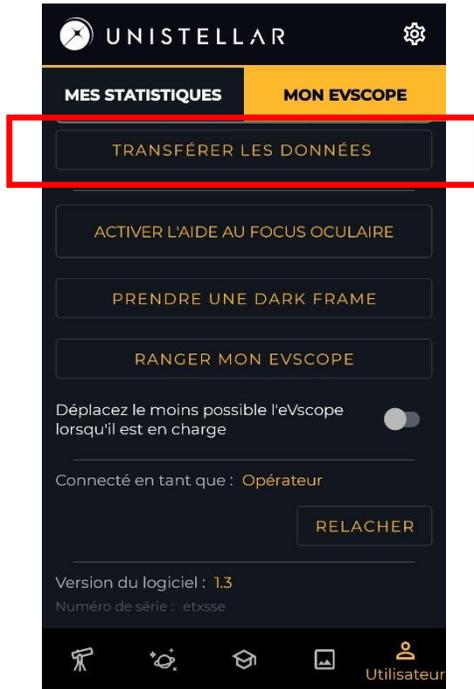
Remettre une durée de **30min00s** et c'est parti!



Répétez cette procédure jusqu'à la fin de l'observation (sans faire l'étape de *Dark Frame*) autant de fois que nécessaire

Pensez à faire un Dark Frame (02min00s) à la fin de votre observation

Transférez les données



Remplissez le formulaire



*** *AFTER OBSERVING*, please submit this **REPORT FORM** so we know to process your data. ***

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Envie de poursuivre cette aventure de science participative ?

Plateforme de communication collaborative

