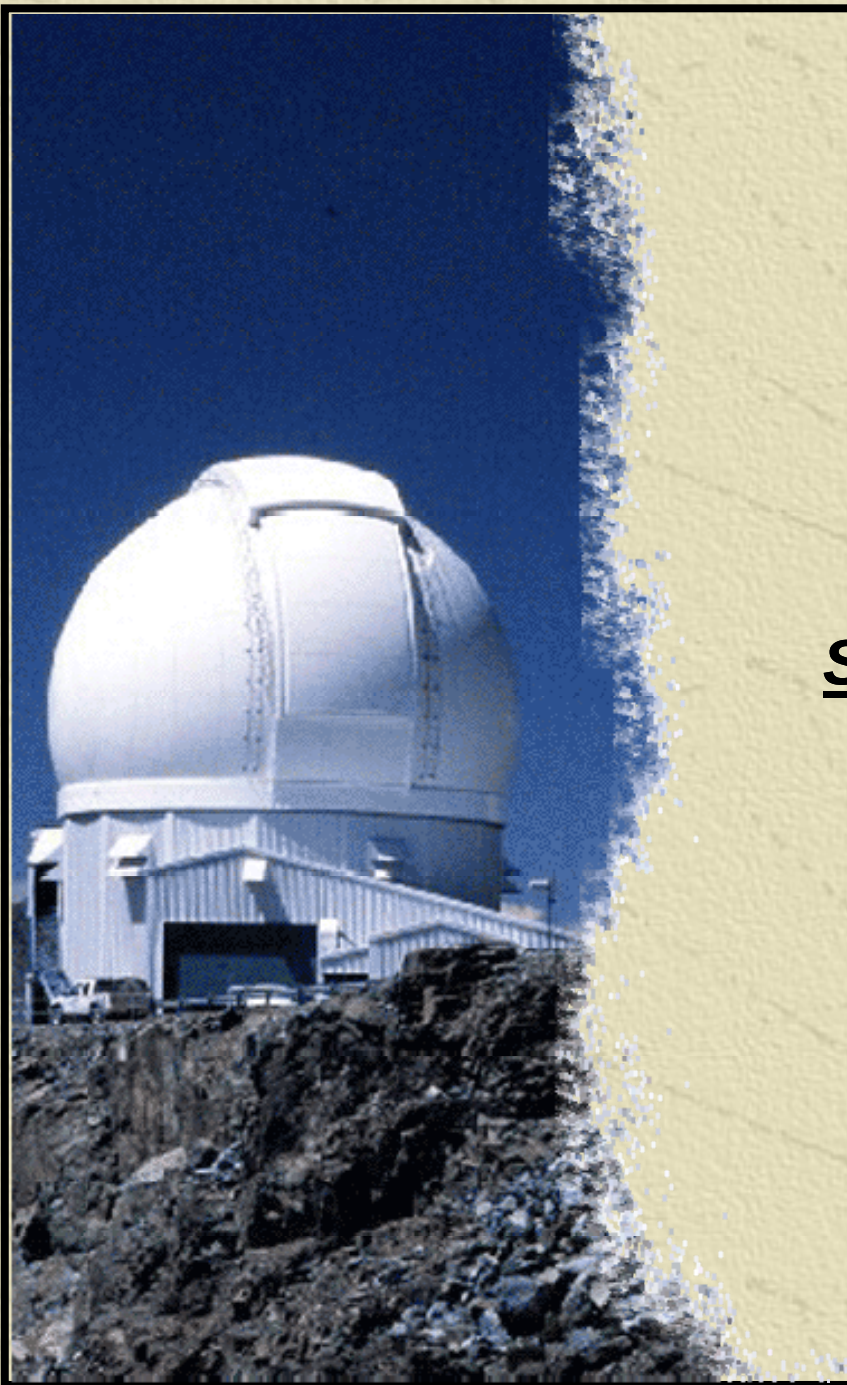


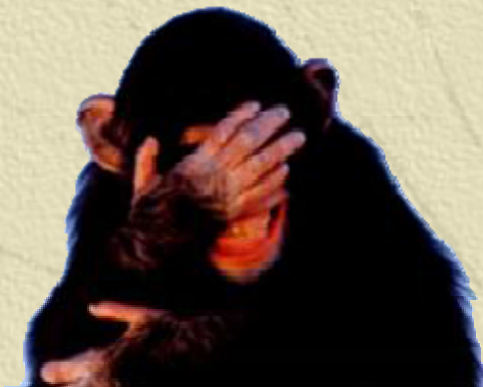


**Observações Remotas com o
SOAR – Antes, Durante e Depois**

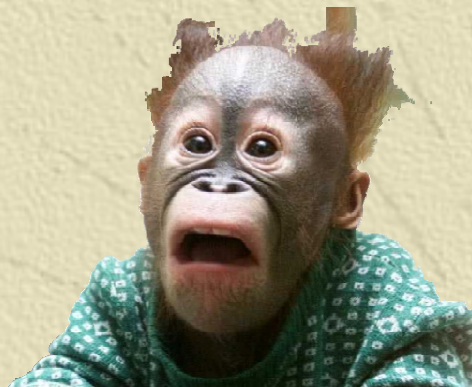
Sergio Scarano Jr
27/042013

Postura do Antes, Durante e Depois

Etapas típicas para uma observação:



Antes



Durante



Depois

Postura esperada nessa apresentação: **PARTICIPEM!!!**



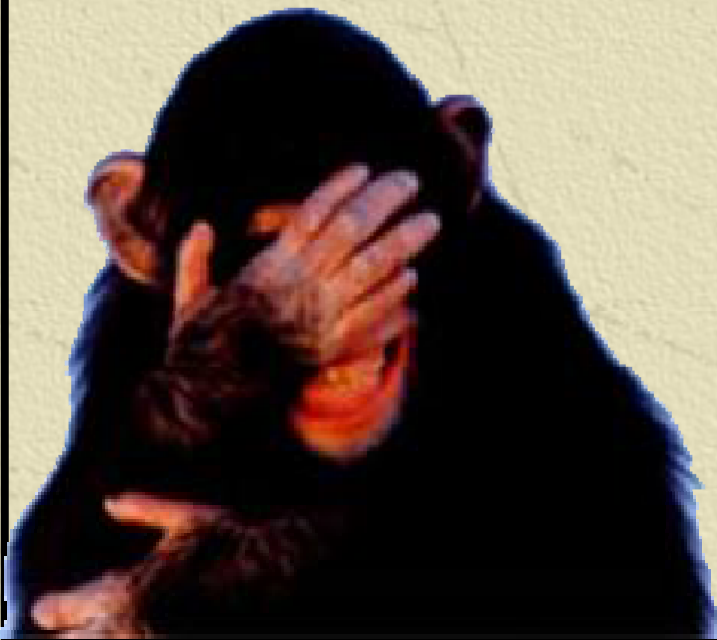
+



=



Antes



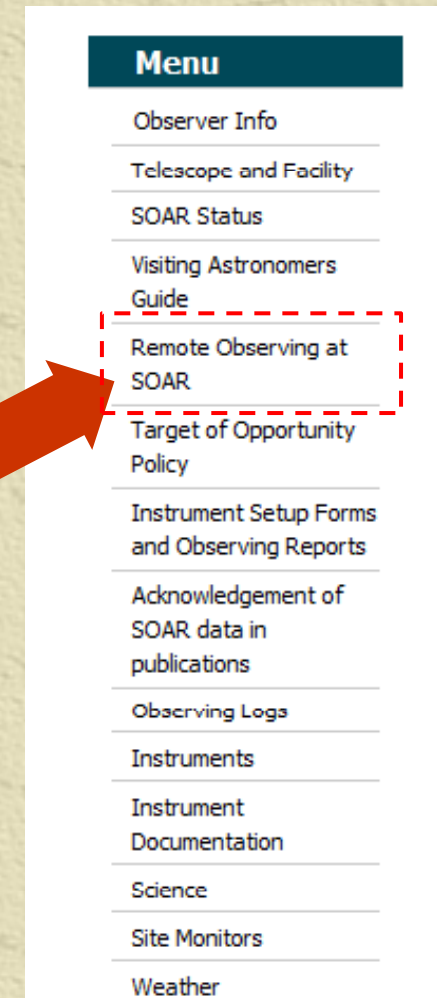
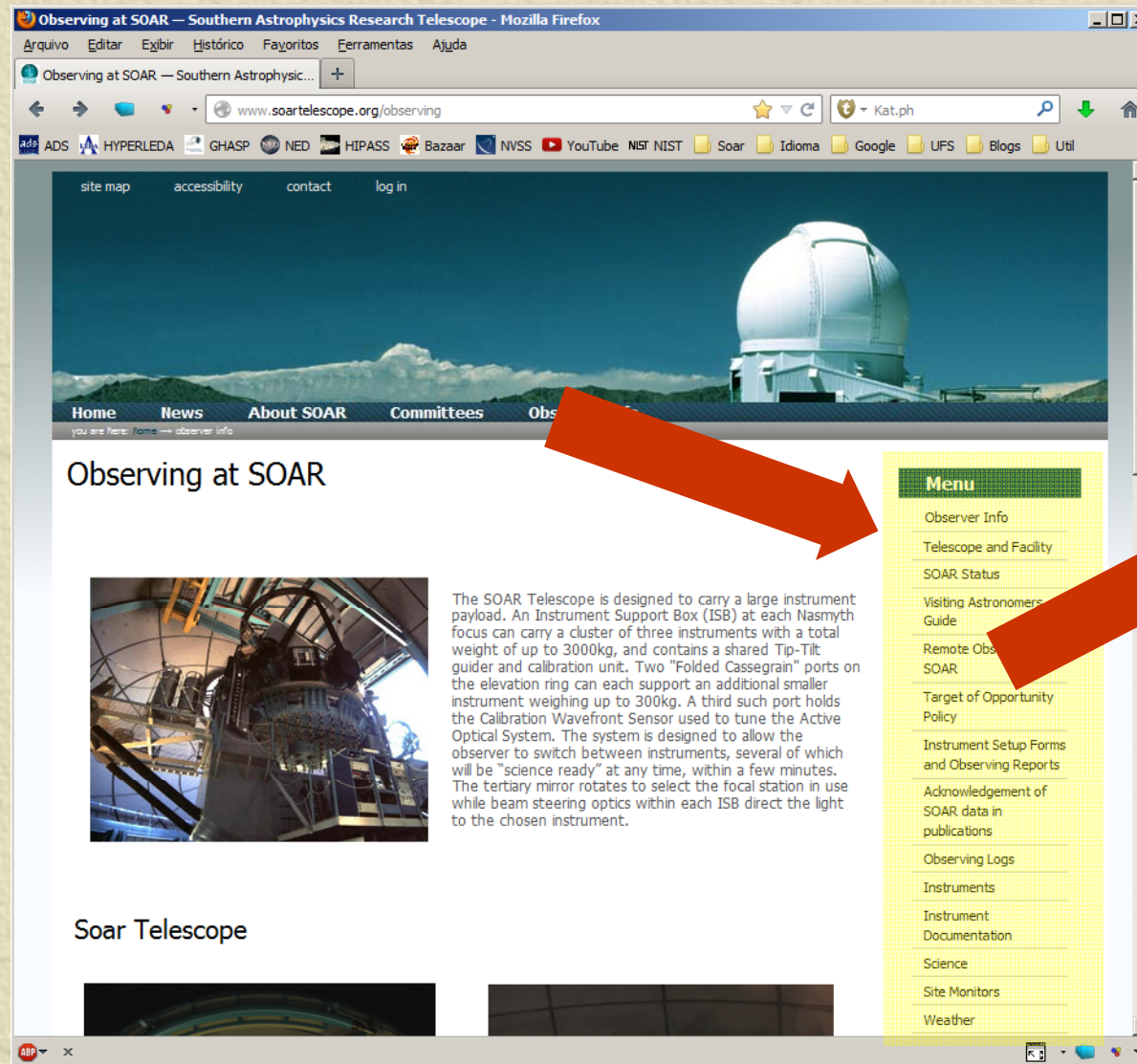
Onde Obter Informações

As informações principais nessa apresentação se encontram no site do SOAR: <http://www.soartelescope.org>



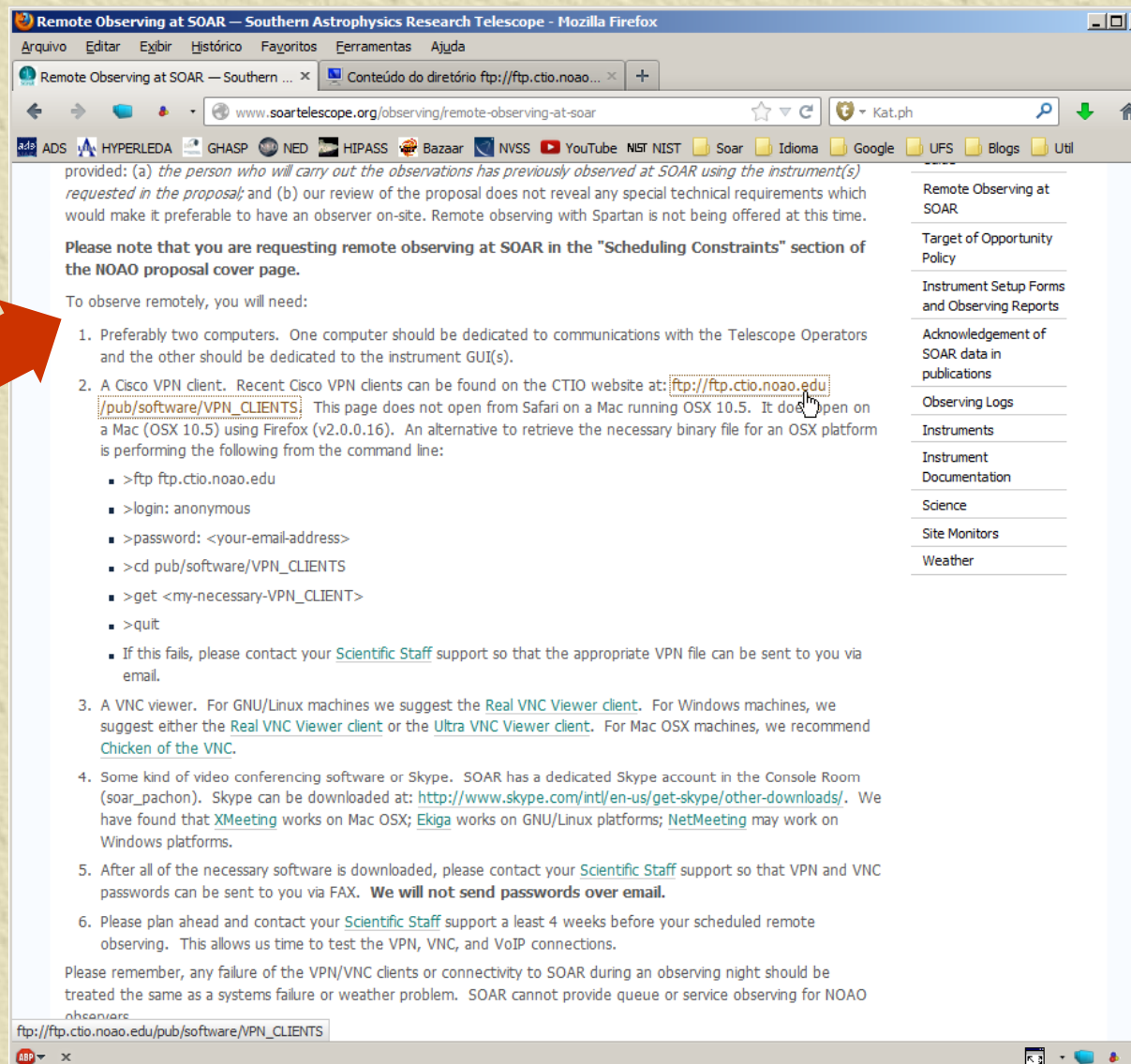
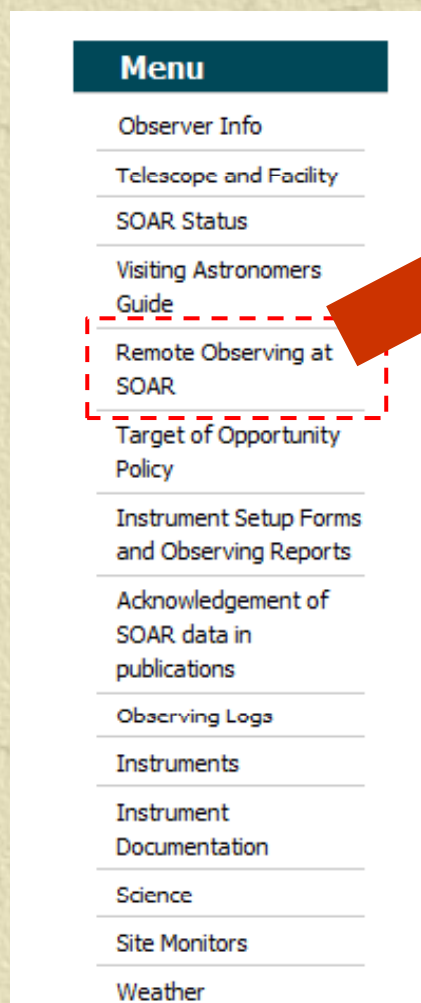
Informações sobre Observações Remotas

As informações principais nessa apresentação se encontram no site do SOAR: <http://www.soartelescope.org>



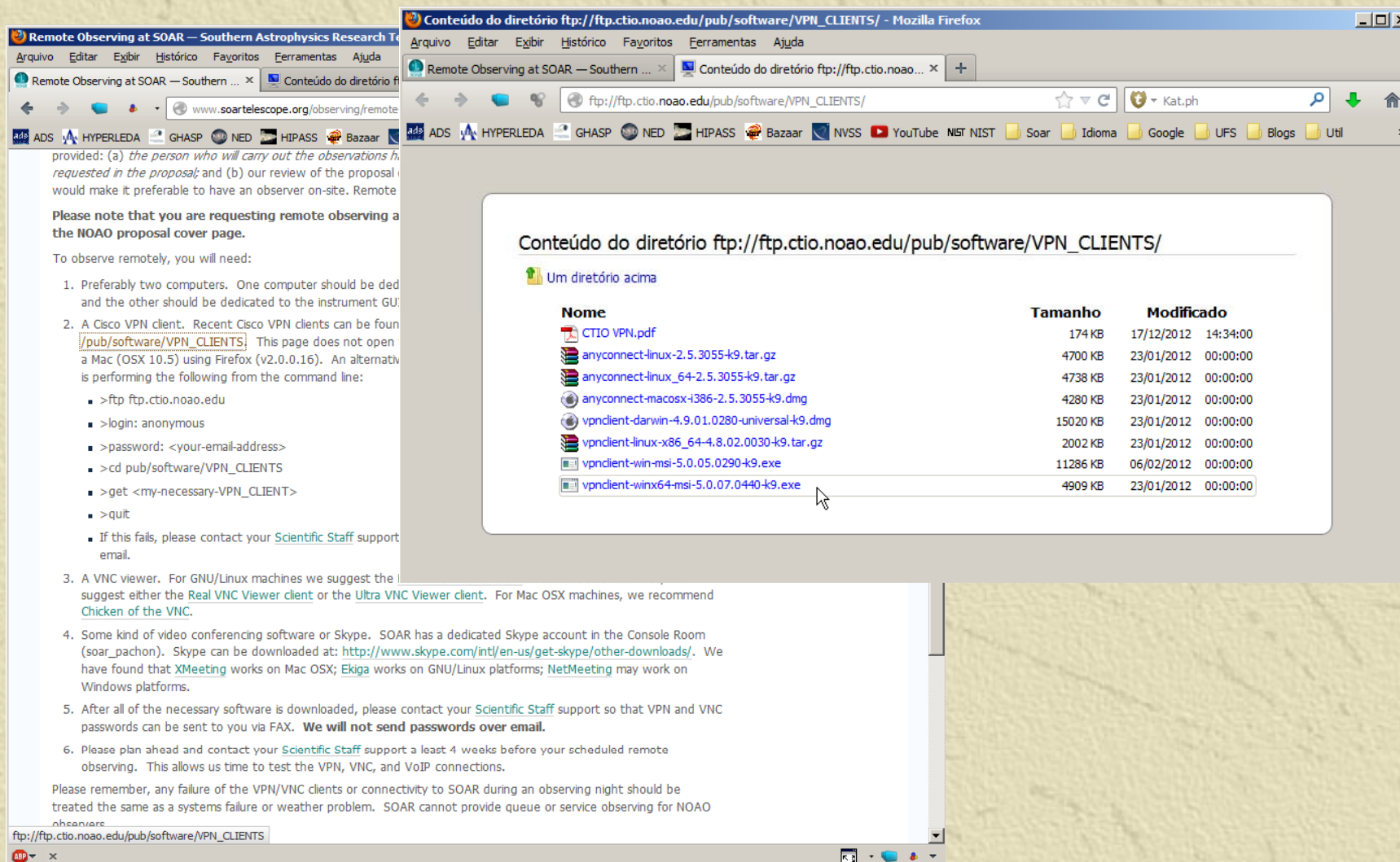
Obtendo as Ferramentas para Observações Remotas

No link “*Remote Observing at SOAR*” são apresentados sugestões de programas para conduzir as observações:



Ferramentas para Conexão com o Telescópio: O VPN

Virtual Private Network (VPN) é uma rede estabelecida por um software que permite trabalhar dentro da rede segura do telescópio SOAR (rede segura) passando pela rede pública da Internet por meio de criptografia.



The screenshot displays two overlapping browser windows. The background window is the 'Remote Observing at SOAR' page, which provides instructions for remote observation. The foreground window shows the contents of an FTP directory: `ftp://ftp.ctio.noao.edu/pub/software/VPN_CLIENTS/`. This directory contains various VPN client files for different operating systems and architectures.

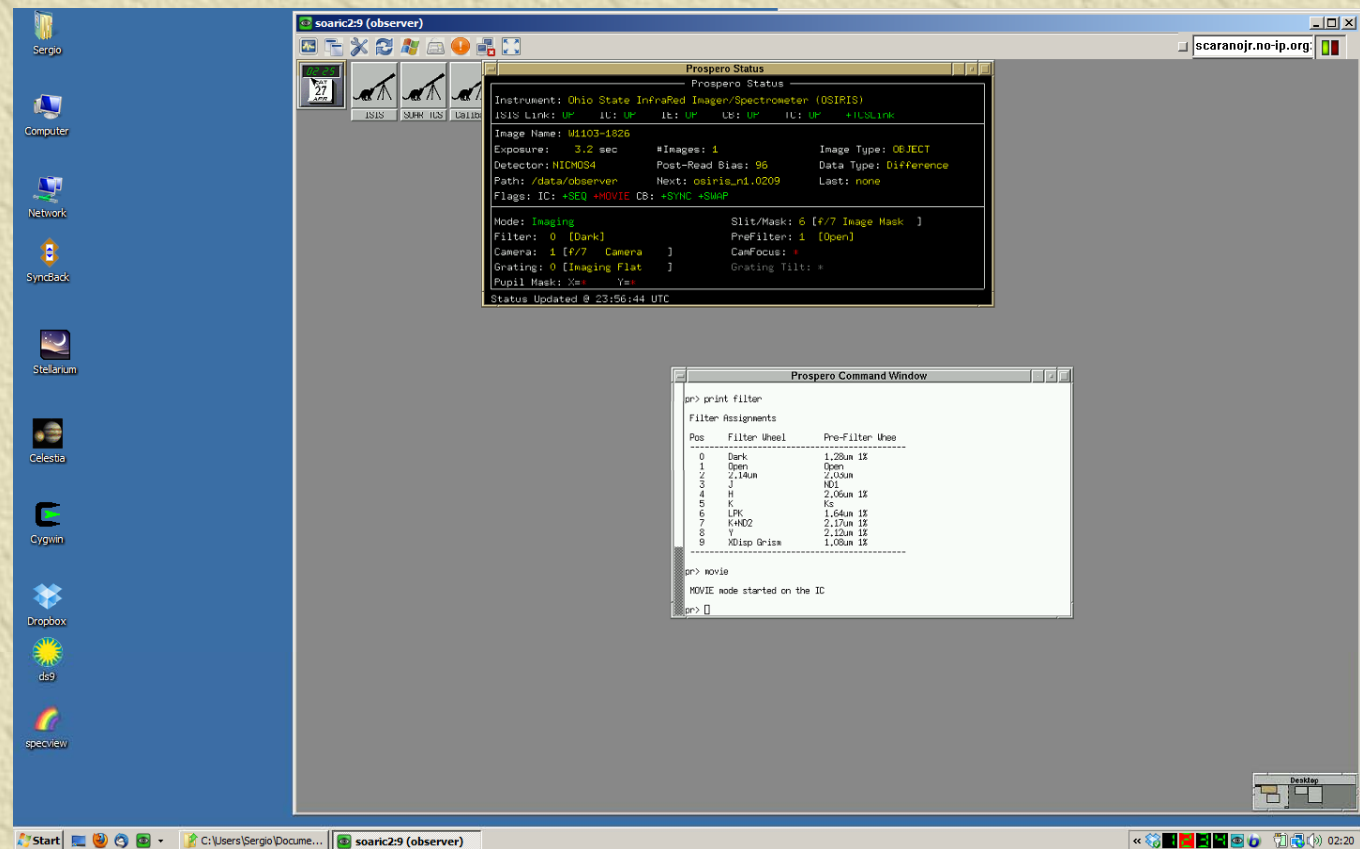
Conteúdo do diretório `ftp://ftp.ctio.noao.edu/pub/software/VPN_CLIENTS/`

Nome	Tamanho	Modificado
CTIO VPN.pdf	174 KB	17/12/2012 14:34:00
anyconnect-linux-2.5.3055-k9.tar.gz	4700 KB	23/01/2012 00:00:00
anyconnect-linux_64-2.5.3055-k9.tar.gz	4738 KB	23/01/2012 00:00:00
anyconnect-macosx-1386-2.5.3055-k9.dmg	4280 KB	23/01/2012 00:00:00
vpndclient-darwin-4.9.01.0280-universal-k9.dmg	15020 KB	23/01/2012 00:00:00
vpndclient-linux-x86_64-4.8.02.0030-k9.tar.gz	2002 KB	23/01/2012 00:00:00
vpndclient-win-msi-5.0.05.0290-k9.exe	11286 KB	06/02/2012 00:00:00
vpndclient-winx64-msi-5.0.07.0440-k9.exe	4909 KB	23/01/2012 00:00:00

Ferramentas para Conexão com o Telescópio: O VNC

Virtual Network Computing é um protocolo que possibilita reconstruir remotamente interfaces gráficas e manipulá-las com comandos locais de mouse e teclados que são enviados e traduzidos ao computador remoto.

REAL
VNC



IMPORTANTE: Modo Shared

Ferramentas para Comunicação com o Telescópio

Durante a observação o observador passará informações aos operadores de telescópio por algum dos seguintes canais de comunicação:



- IP da Polycom na montanha: **139.229.10.68**;
- Teleconferência por meio de IPPhone;
- Método utilizado por todas estações remotas;
- Vantagem de estabelecer um canal exclusivo de comunicação sem usar recursos dos computadores conectados;
- Solução com hardware otimizado e dedicado para teleconferências;

Ferramentas alternativas:



= **soar_pachon**



Solicitando a Configuração do Instrumento

Com pelo menos uma semana de antecedência o observador deve preencher o formulário sobre como instrumento deve ser configurado para o dia da observação.

Instrument Setup Forms and Observing Reports — Southern Astrophysics Research Telescope - Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda

Remote Observing at SOAR — Southern ... x Instrument Setup Forms and Observing ... x +

www.soartelescope.org/observing/observing-forms-and-reports

Kat.ph

ADS HYPERLEDA GHASP NED HIPASS Bazaar NVSS YouTube NIST NIST Soar Idioma Google UFS Blogs Util

site map accessibility contact log in

Home News About SOAR Committees Observer Info

you are here: Home → observer info → instrument setup forms and observing reports

Instrument Setup Forms and Observing Reports

- [A README file for the Instrument Setup Form](#)
- [Instrument Setup Form](#)
- [Classical Observing - End of Night Report](#)
- [Classical Observing - End of Run Report \(only for NOAO visiting astronomers\)](#)
- [Service Observing - End of Night Report \(only for SOAR Staff\)](#)
- [GNATS problem reporting system](#)

Menu

- Observer Info
- Telescope and Facility
- SOAR Status
- Visiting Astronomers Guide
- Remote Observing at SOAR
- Target of Opportunity Policy
- [Instrument Setup Forms and Observing Reports](#)
- Acknowledgement of SOAR data

Informações que Devem Ser Incluídas no Setup

Instruções gerais:

The screenshot shows a web browser window titled "README for SOAR Instrument Setup Form — Southern Astrophysics Research Telescope - Mozilla Firefox". The address bar shows the URL "www.soartelescope.org/observing/readme-for-soar-instrument-setup-form". The page content includes a "Menu" on the right with links to Observer Info, Telescope and Facility, SOAR Status, Visiting Astronomers Guide, Remote Observing at SOAR, Target of Opportunity Policy, Instrument Setup Forms and Observing Reports, Acknowledgement of SOAR data in publications, Observing Logs, Instruments, Instrument Documentation, Science, Site Monitors, Weather, and README for SOAR Instrument Setup Form. The main content area has the heading "README for SOAR Instrument Setup Form" and a subheading "A README file for the SOAR Instrument Setup Form". It explains that the SOAR Instrument Setup Form is used by all SOAR observers to indicate the required configuration of the instrument/s that is/are going to be used to achieve their science objectives. It also mentions that observers are asked to submit copies of their Target List, Finding Charts, and Special Instructions. A section titled "Target List" explains that SOAR has the capability to guide sidereally or non-sidereally. For sidereal guiding, target files should be submitted in a specific format, with an example table provided. The table has columns for Date (UT), HR:MN, R.A. (ICRF/J2000.0), DEC, dRA*cosD, d(DEC)/dt, and a-mass. The example data shows observations from 2008-Apr-07 05:00 to 2008-Apr-07 07:30. The page also mentions that for non-sidereal guiding, the software is set up to read in ephemerides generated using horizons (http://ssd.jpl.nasa.gov/?horizons). An example of this is given below. The example data shows observations from 2008-Apr-07 05:00 to 2008-Apr-07 07:30. The page also mentions that in order to obtain the proper information for the non-sidereal guiding ephemerides, you will want to change the Table Settings on the Horizons webpage so that only "Astrometric RA & DEC", "Rates; RA & DEC", and "Airmass". You will also want to change the Display/Output on the Horizons webpage to "download/save". The page also mentions that one can also determine which solar system objects are observable at SOAR for a given time using the JPL website (http://ssd.jpl.nasa.gov/sbwoobs.cgi). You only need to set the observation time, location (SOAR is I33), and a limiting magnitude. Press "search" and it will return a list of small bodies that are observable that night. Please note that all times are UT. The page ends with a section titled "Finding Charts".

README for SOAR Instrument Setup Form

A README file for the SOAR Instrument Setup Form

The SOAR [Instrument Setup Form](#) is used by all SOAR observers to indicate the required configuration of the instrument/s that is/are going to be used to achieve their science objectives. On the [Instrument Setup Form](#), the observers are asked to submit copies of their Target List, Finding Charts, and Special Instructions. We request that the Finding Charts are either submitted as a zipped file or as a tar-ball. If the file size of your Finding Charts is greater than 2MB, we request that you place your finding charts on a webpage and provide us with the URL.

Target List

SOAR has the capability to guide sidereally or non-sidereally.

For sidereal guiding, these target files should be submitted in the following format:

OBJECT_ID#1 HH:MM:SS DD:MM:SS Epoch
OBJECT_ID#2 HH:MM:SS DD:MM:SS Epoch
OBJECT_ID#3 HH:MM:SS DD:MM:SS Epoch
etc.

There should be no spaces in the OBJECT_ID#n field.

For non-sidereal guiding, our software is set up to read in ephemerides generated using horizons (<http://ssd.jpl.nasa.gov/?horizons>). An example of this is given below:

#Date__(UT)__HR:MN	R.A.__(ICRF/J2000.0)__DEC	dRA*cosD	d(DEC)/dt	a-mass
2008-Apr-07 05:00	16 44 46.1498 -01 44 13.359	-2.87	2.01	1.793
2008-Apr-07 05:30	16 44 46.0540 -01 44 12.353	-2.88	2.01	1.560
2008-Apr-07 06:00	16 44 45.9578 -01 44 11.346	-2.89	2.01	1.402
2008-Apr-07 06:30	16 44 45.8614 -01 44 10.340	-2.90	2.01	1.292
2008-Apr-07 07:00	16 44 45.7646 -01 44 09.334	-2.91	2.01	1.217
2008-Apr-07 07:30	16 44 45.6677 -01 44 08.328	-2.91	2.01	1.169

In order to obtain the proper information for the non-sidereal guiding ephemerides, you will want to change the Table Settings on the Horizons webpage so that only "Astrometric RA & DEC", "Rates; RA & DEC", and "Airmass". You will also want to change the Display/Output on the Horizons webpage to "download/save".

One can also determine which solar system objects are observable at SOAR for a given time using the JPL website (<http://ssd.jpl.nasa.gov/sbwoobs.cgi>). You only need to set the observation time, location (SOAR is I33), and a limiting magnitude. Press "search" and it will return a list of small bodies that are observable that night. Please note that all times are UT.

Finding Charts

- Lista de objetos;

- Filtros;

<http://www.soartelescope.org/observing/soi-filters>

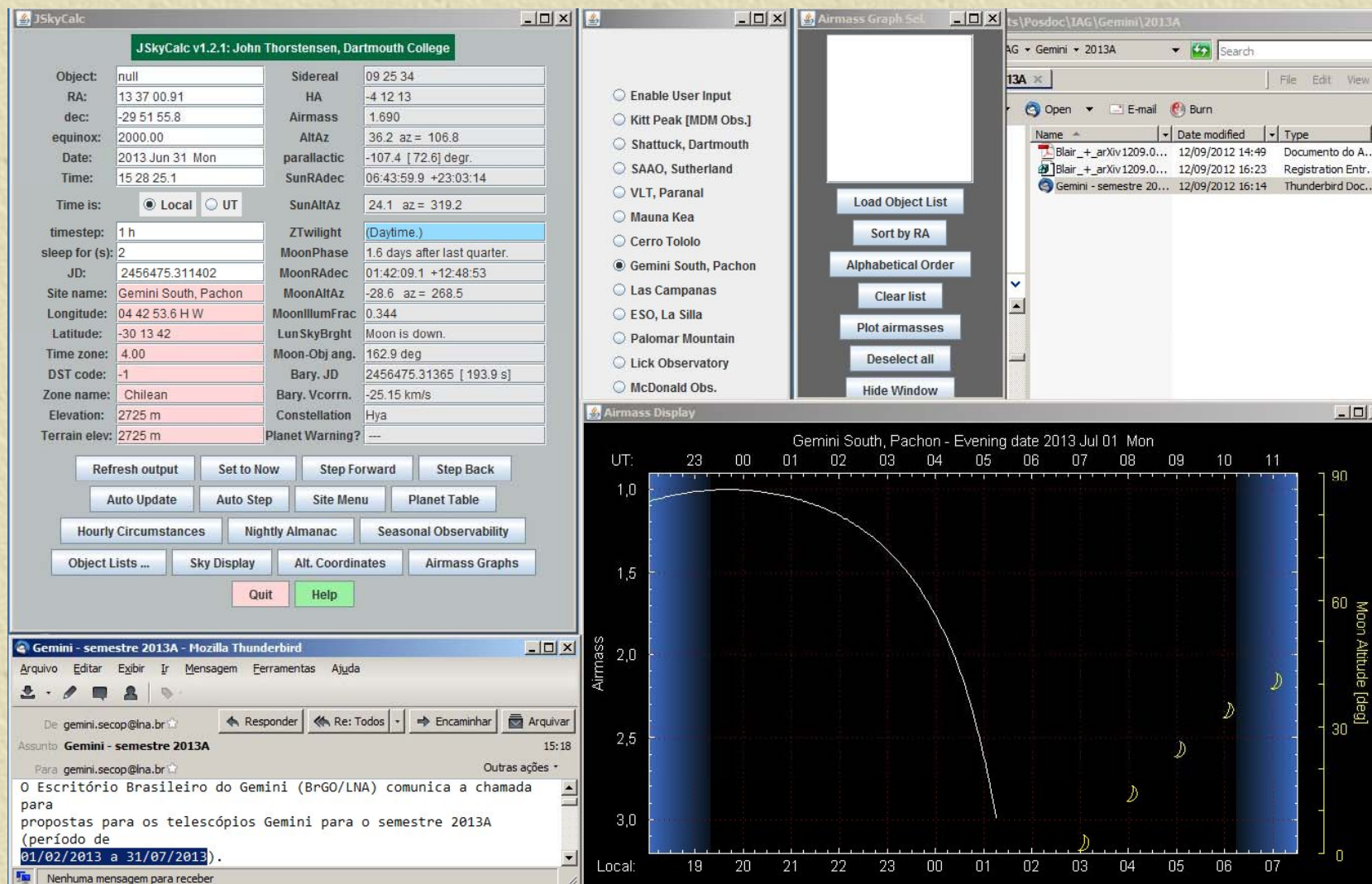
http://www.ctio.noao.edu/instruments/filters/filters_34.html

- Configuração da câmera (quando solicitado)

- Redes (apenas para Goodman)

Verificando a “Observabilidade” dos Objetos

Sugere-se a utilização de um software de efemérides para controlar isso.
Exemplo: o SKYCALC de John Thorstensen.



Organizando as Observação para Diferentes Circunstâncias Observacionais

Seeing	Hora	Fotométrico	Cirrus
		Obj.	Obj.
QI ≤ 1"	1 B	G331.7318 / G334.8438	G331.7318 / G334.8438
	2 B	G344.9816 / G348.5477	G344.9816 / G348.5477
	3 B	2139n02T / 2154s10T	HIP90821 / LHA115-S 6
	4 B	2239n16W / 2139n02T	HE2140-3229 / HE2140-0744
	5 B	LTT1020/ NGC1097	LTT1020/ NGC1097
	6 B	NGC1097	NGC1097
	7 D	2MASS J022710 / 2MASS J04390	2MASS J022710 / 2MASS J04390
	8 D	0310n16T / 0247s16S	J05225942 / HIP 25903
	9 D	0348s60T / 0510s42T	HE0436-3954 / HE0443-2047
1" < QI ≤ 1.3"	1 B	G331.7318 / G334.8438	G331.7318 / G334.8438
	2 B	G344.9816 / G348.5477	G344.9816 / G348.5477
	3 B	2139n02T / 2154s10T	HIP90821 / LHA115-S 6
	4 B	2239n16W / 2139n02T	HE2140-3229 / HE2140-0744
	5 B	LTT1020/ NGC1097	LTT1020/ NGC1097
	6 B	NGC1097	NGC1097
	7 D	2MASS J022710 / 2MASS J04390	2MASS J022710 / 2MASS J04390
	8 D	0310n16T / 0247s16S	J05225942 / HIP 25903
	9 D	0348s60T / 0510s42T	HE0436-3954 / HE0443-2047
QI = Any	1 B	HE2154-2229 / HE2159-2247	HE2154-2229 / HE2159-2247
	2 B	HE2200-2620 / HE2214-0838	HE2200-2620 / HE2214-0838
	3 B	HE2231-0503 / HE2232-0328	HE2231-0503 / HE2232-0328
	4 B	HE2233-0035 / HE2225-3539	HE2233-0035 / HE2225-3539
	5 B	HE2215-2051 / HE2223-3627	HE2215-2051 / HE2223-3627
	6 B	HE2243-0618 / HE2243-0619	NGC1097
	7 D	NGC1097	NGC1097
	8 D	NGC1097	NGC1097
	9 D	NGC1097/LTT1020	NGC1097/LTT1020

B = Bright, G = Grey, D = Dark.

O Formulário de Configuração Instrumental

Pelo link “[Instrument Setup Form](#)” é possível enviar aos operadores de telescópio a lista de objetos, a configuração instrumental e solicitações especiais.

Instrument Setup: SOAR Telescope Form

This form should be filled out a **month** in advance of your observing run. It represents your acceptance of your telescope assignment.

Restaurar valores

Proposal Information

Please indicate the proposal information that applies to your run.

Semester
Proposal ID
Principal Investigator
Program Title
Dates of the Run First Night:
Last Night:
Give the full set of run dates even if there is an instrument change. Please Note: First and last nights may be equal. use (yyyy-mm-dd) format.

People

Information about the observer (whether on-site or remote).

Observer
Observer's email address
A copy of this report will be sent to this address. Separate multiple addresses with a comma.

Instrument Setup

Information about setting up the instrument.

Institution (Who is this program for?)

Which instrument(s) do you want to use?

(Check all that apply, in netscape click an item to highlight it, in MS/IE, hold down the control key while clicking to select multiple items.)

Acquisition
Goodman HTS
OSIRIS
Phoenix
SIFS
SOI
Spartan IRC
BTFI
Visitor

When ready for the next page



Instrument Setup: SOAR Telescope Form Page

2

This form allows you to fill out information on each of the instruments you have selected. Note: There is a 2 MB limit on the size of your each of your files.

Restaurar valores

Goodman HTS

First Night

Indicate the first night this instrument will be used. Please use (yyyy-mm-dd) format.

Grating

Please list which grating(s) you need for your observations. Changing gratings is a daytime task.

Filters

Please list the imaging filters needed. The GG-385, GG-455, GG-495, and OG-570 are always installed. Filters can be either 4" sq. or 4" diameter.

Target List

Upload only one file.

Finding Charts

Please zip or tar-ball your charts into one file. If this file is larger than 2MB, please use the URL method of giving us your charts.

Finding Charts URL

This is a URL where your finding charts can be found.

Special Instructions

This includes any information that you think needs further explanation. Or special setup requests.

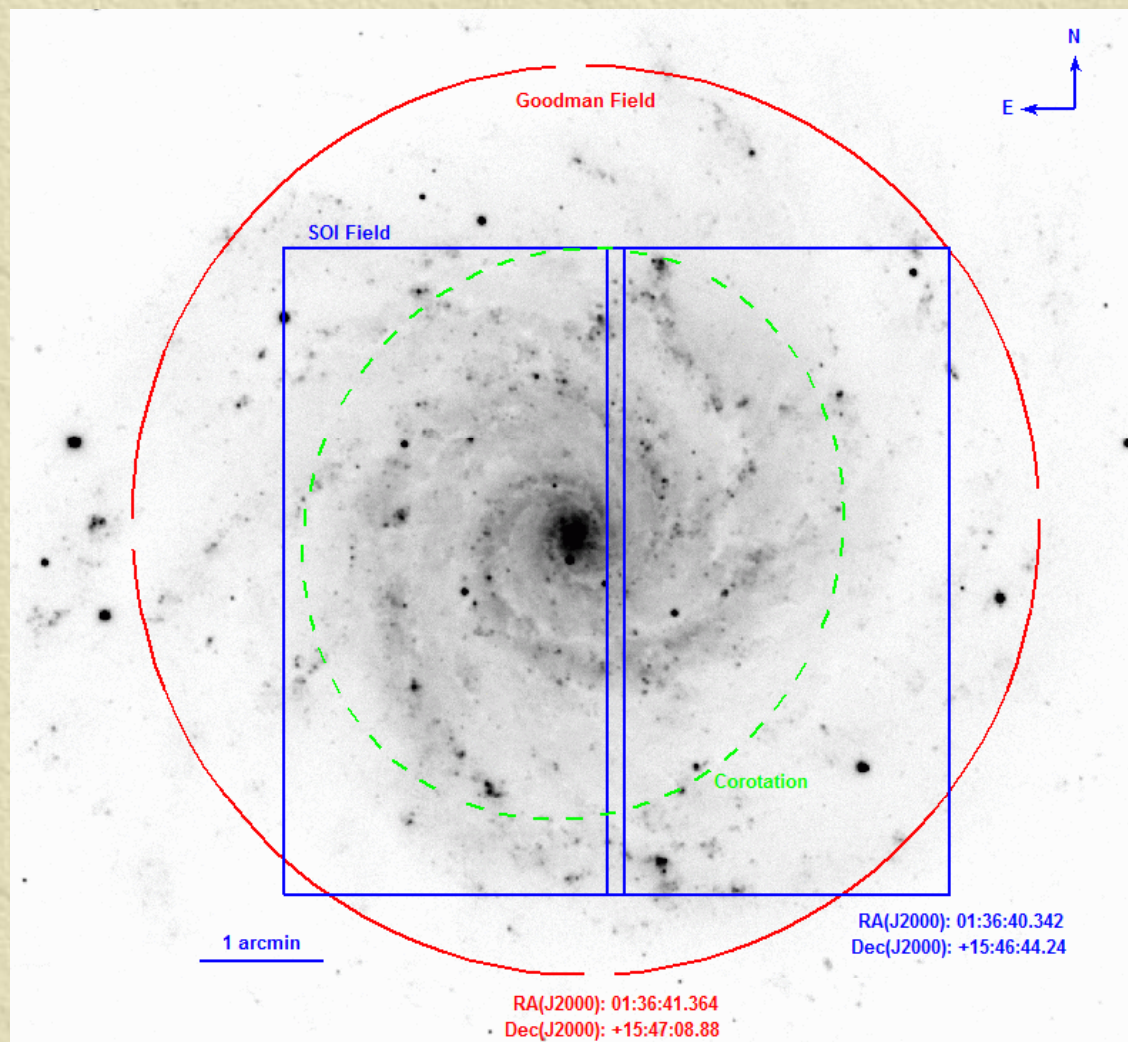


webmaster@ctio.noao.edu
This page last modified May 02 2012 10:52



Elabore Finding Charts com Antecedência

Diversos aplicativos podem ajudar nisso. Dicas sobre isso podem ser obtidas na seção de perguntas de amanhã.



B = Bright, G = Grey, D = Dark.

Contato com os Operadores de Telescópio

Antes de tudo é necessário marcar com os operadores de Telescópio da noite uma hora para as calibrações.

soarops@ctio.noao.edu

Lembrar o seguinte:

- 1-) A hora no Chile está 1h atrasada em relação ao nosso;
- 2-) No verão eles também adotam o horário de verão que pode ter o início e o fim defasados do nosso;
- 3-) No geral há operadores na sala de operação do telescópio a partir das 14h do Chile, mas recomenda-se iniciar as calibrações depois das 16h do Chile, pois durante a tarde o telescópio é ocupado para procedimentos de engenharia ;
- 4-) No Verão os operadores jantam por volta das 17h, e no inverno às 18h, então evite esses horários para calibração;
- 5-) Identifique na noite de observação os horários em que o Sol e a Lua nasce e se põe e quando inicia e acaba o crepúsculo (*twilight*). Planeje sua observação apenas dentro do período entre *twilights* mesmo quando observando no infravermelho.
- 6-) Planeje suas calibrações para que acabem 1h antes do final do *twilight*, para que os operadores tenham tempo o suficiente para trabalhar na óptica do telescópio.

Identificando as Calibrações Necessárias

Esse tema será abordado nas apresentações específicas de cada instrumento. Mas no geral as seguintes calibrações são feitas:

Goodman

- 1 sequência de foco para cada configuração de filtro, fenda, rede, binagem e modo de leitura;
- 30 **bias** em cada configuração binagem e modo de leitura
- 10 **flats** em cada configuração de filtro, fenda, rede, binagem e modo de leitura;

OSIRIS

- 1 sequência de foco para cada configuração, região de dispersão (J, H e K) e modo espectroscópico (longslit, XD, HR, LR);
- 5 ou mais **darks** com tempo mínimo igual ao tempo máximo entre os tempos de exposição que serão adotados durante a noite;
- 10-15 **flatfields-on** (lâmpada de quartzo acesa) em cada configuração, região de dispersão e modo espectroscópico;
- 10-15 **flatfields-off** (lâmpada de quartzo apagada) em cada configuração, região de dispersão e modo espectroscópico e mesmo tempo de exposição dos flats on.

Identificando as Calibrações Necessárias

Esse tema será abordado nas apresentações específicas de cada instrumento. Mas no geral as seguintes calibrações são feitas:

SOI

- 30-50 **bias** em cada configuração de binagem,
- 15-20 **flats** em cada configuração de filtro e binagem.
- Solicitar com a equipe do SOAR, arquivos de franja para os filtro I, i, z ou para configurações muito personalizadas planejar a observação de seus próprios arquivos de franjas.

SPARTAN

- 5 ou mais **darks** com tempo mínimo igual ao tempo máximo entre os tempos de exposição que serão adotados durante a noite;
- 10-15 **flatfields-on** (lâmpada de quartzo acesa) em cada filtro, configuração de câmera;
- 10-15 **flatfields-off** (lâmpada de quartzo apagada) em cada filtro, configuração de câmera e mesmo tempo de exposição dos flats on.

Solicitar com antecedência o auxílio dos operadores de telescópio com skyflats

Política para Nomear os Arquivos

Para prosseguirmos com a organização dos dados observados com o SOAR solicitamos a seguinte norma para nomear os arquivos de observação (basename):

SO2013A-007_0427

Identificador do Projeto

Mês e dia da
observação

Para calibrações também há normas. Exemplos para o Goodman:

Foco: **focus_600b.fits**

tipo

rede + modo

Flat: **bias_1x1_100kHz.fits**

tipo

binagem

readout

Flat: **qflat600b_1x1_100kHz.fits**

readout

tipo

rede

binagem

+

modo

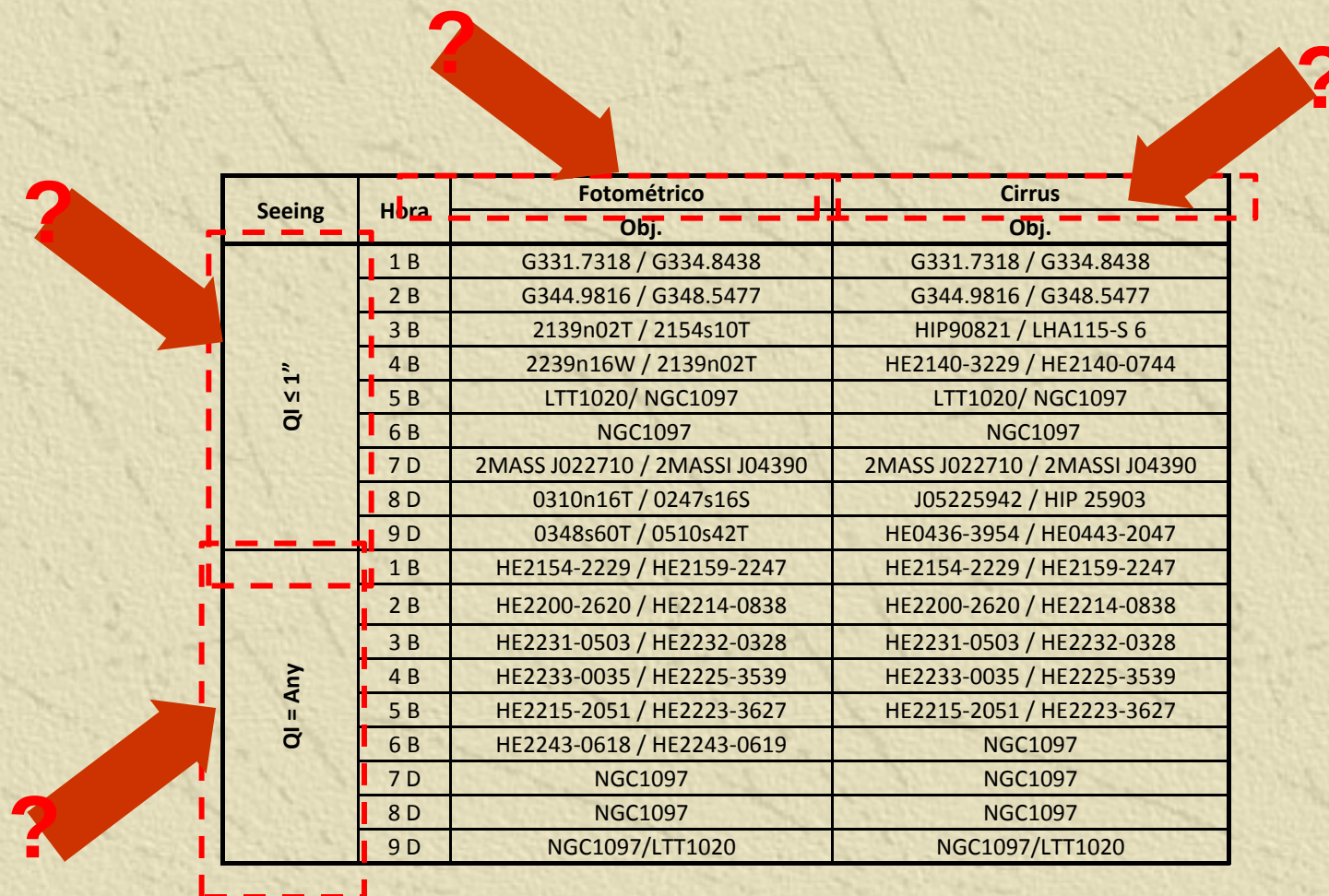
Procedimento de Observação com os Operadores de Telescópio

Ao final do procedimento com a óptica do telescópio os operadores darão sinal que as observações podem começar. A partir daí pode-se prosseguir da seguinte forma:

- 1-) “Cantar” as coordenadas ou o número do objeto na lista enviada aos operadores;
- 2-) Informar o ângulo de posição desejado (os operadores podem calcular o ângulo paralático do momento, se desejado). **ALERTA: Há limites para os ângulos de posição especialmente no infravermelho, que podem ser verificados com antecedência por meio dos softwares apropriados (SEÇÃO DE PERGUNTAS DO WORKSHOP);**
- 3-) Informar nesse momento se você deseja acompanhamento não sideral. Caso essa informação não conste do seu arquivo de objetos, deve-se fornecer as variações em ascensão reta e declinação nessa ordem cantando “*los rates*”;
- 4-) Preparar a interface gráfica para receber os dados de uma primeira imagem que chamamos de aquisição. Usamos o termo “acq” na especificação da KEYWORD “OBJECT”;
- 5-) Aguardar a autorização dos operadores para o início das exposições;
- 6-) Entre observações, calibrações intermediárias e mudança de alvos tem que ser solicitadas aos operadores;

Ferramentas Para Gerenciar as Observações

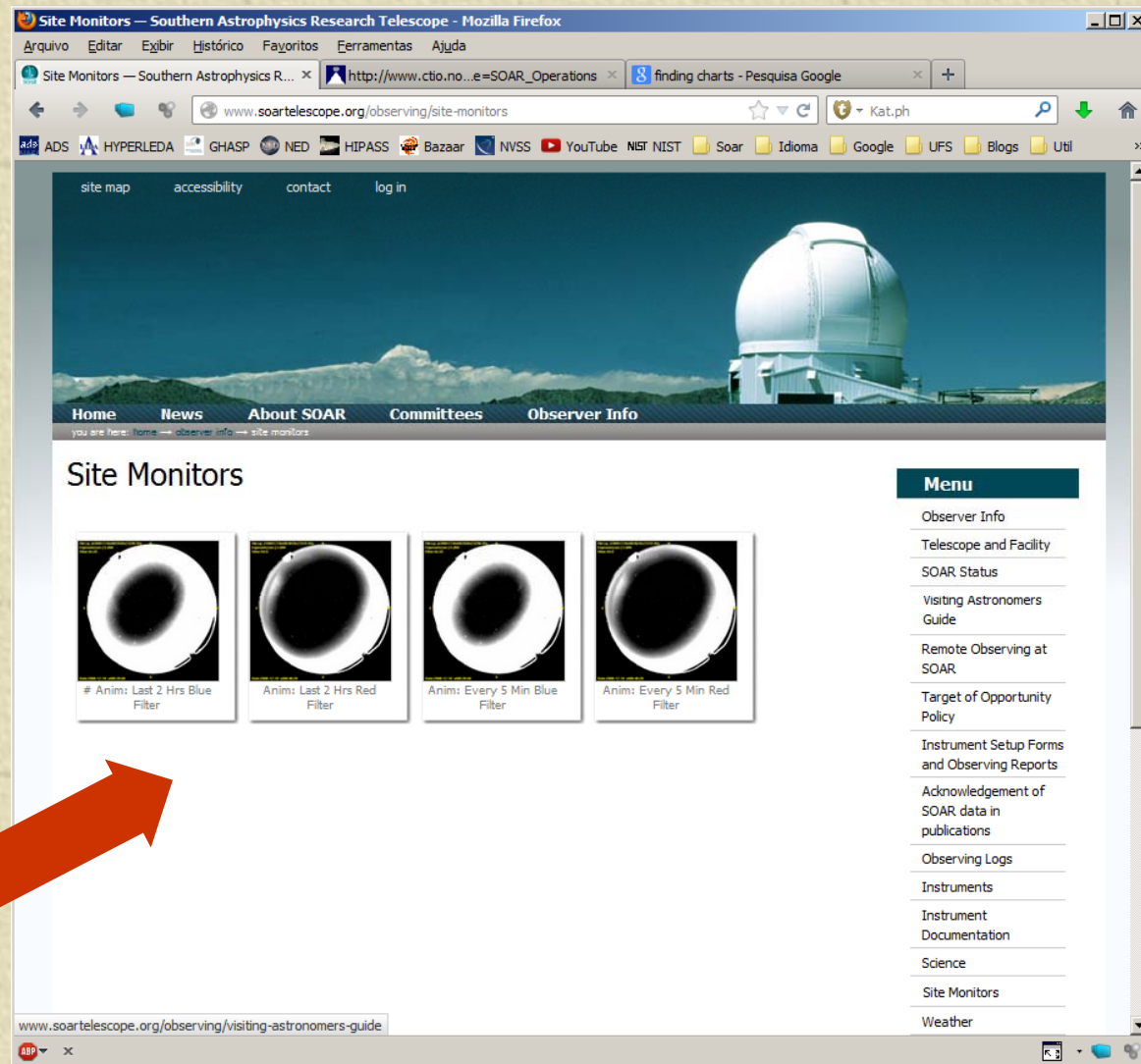
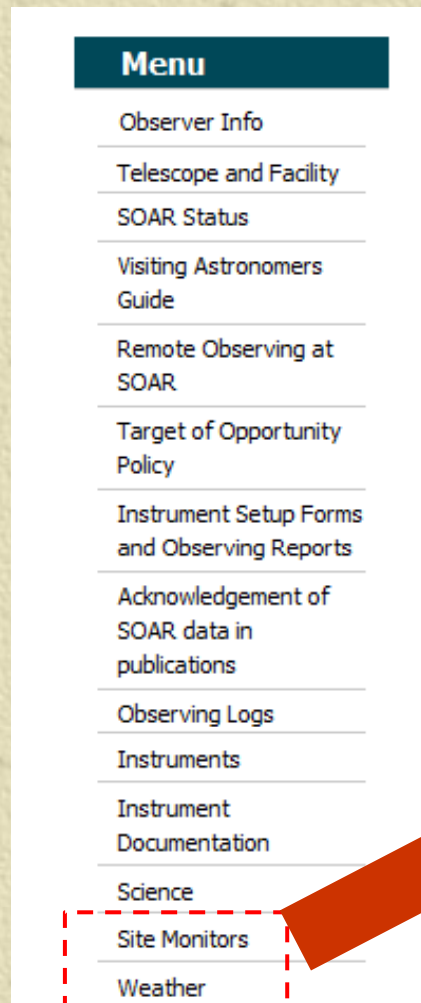
Com o VPN conectado é possível acessar uma série de páginas dentro da rede do CTIO que fornecem condições observacionais.



Seeing	Hora	Fotométrico	Cirrus
		Obj.	Obj.
QI ≤ 1"	1 B	G331.7318 / G334.8438	G331.7318 / G334.8438
	2 B	G344.9816 / G348.5477	G344.9816 / G348.5477
	3 B	2139n02T / 2154s10T	HIP90821 / LHA115-S 6
	4 B	2239n16W / 2139n02T	HE2140-3229 / HE2140-0744
	5 B	LTT1020/ NGC1097	LTT1020/ NGC1097
	6 B	NGC1097	NGC1097
	7 D	2MASS J022710 / 2MASS J04390	2MASS J022710 / 2MASS J04390
	8 D	0310n16T / 0247s16S	J05225942 / HIP 25903
	9 D	0348s60T / 0510s42T	HE0436-3954 / HE0443-2047
QI = Any	1 B	HE2154-2229 / HE2159-2247	HE2154-2229 / HE2159-2247
	2 B	HE2200-2620 / HE2214-0838	HE2200-2620 / HE2214-0838
	3 B	HE2231-0503 / HE2232-0328	HE2231-0503 / HE2232-0328
	4 B	HE2233-0035 / HE2225-3539	HE2233-0035 / HE2225-3539
	5 B	HE2215-2051 / HE2223-3627	HE2215-2051 / HE2223-3627
	6 B	HE2243-0618 / HE2243-0619	NGC1097
	7 D	NGC1097	NGC1097
	8 D	NGC1097	NGC1097
	9 D	NGC1097/LTT1020	NGC1097/LTT1020

Ferramentas Para Gerenciar as Observações

Com o VPN conectado é possível acessar uma série de páginas dentro da rede do CTIO que fornecem condições observacionais.



Ferramentas para Gerenciar as Observações: Nuvens

Antes da observação começar pode-se ver parte do céu pelas webcams do SOAR e pelo satélite:

<http://www.soartelescope.org/about-soar/webcams-1/Webcam.htm/html>



Menu

Location

Partners

SOAR Staff

Support Staff

Job Opportunities

Links

Webcams

Webcam.htm

Design

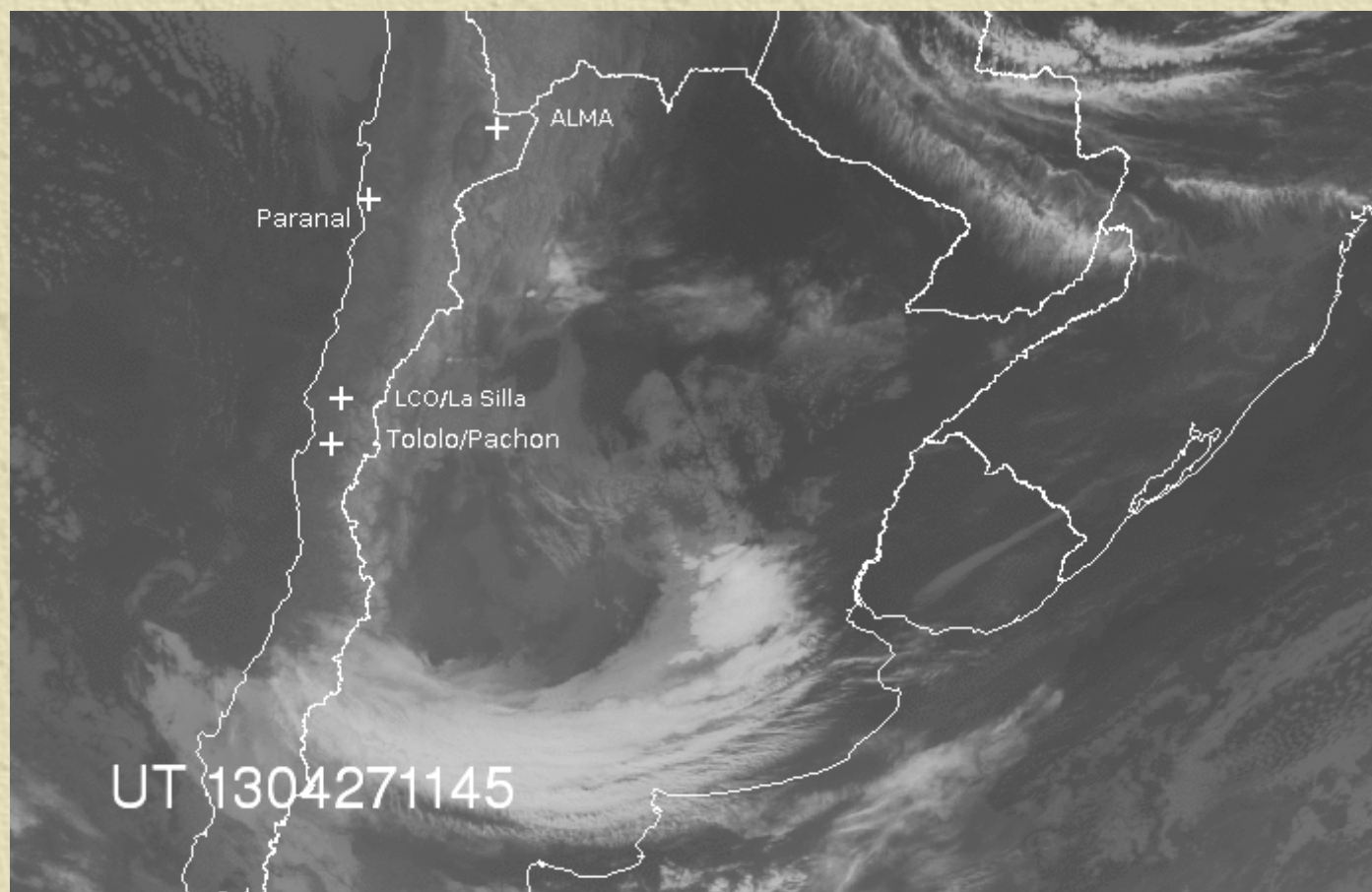
Photo Gallery

Video Gallery

Ferramentas para Gerenciar as Observações: Nuvens

Antes da observação começar pode-se ver parte do céu pelas webcams do SOAR e pelo satélite:

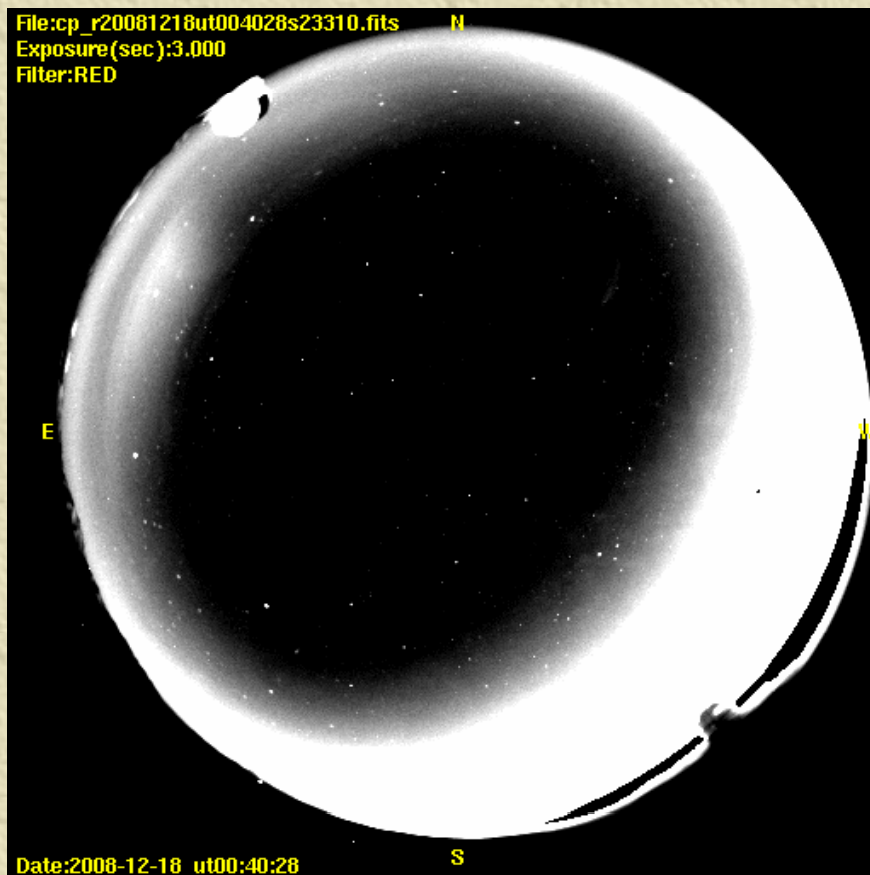
<http://www.noao.edu/noao/staff/blum/GOES/>



Ferramentas para Gerenciar as Observações: Nuvens

Usa-se a câmera conhecida como SASCA (all sky). Quando não funciona usa-se a de Tololo:

<http://139.229.115.232/SASCA/>



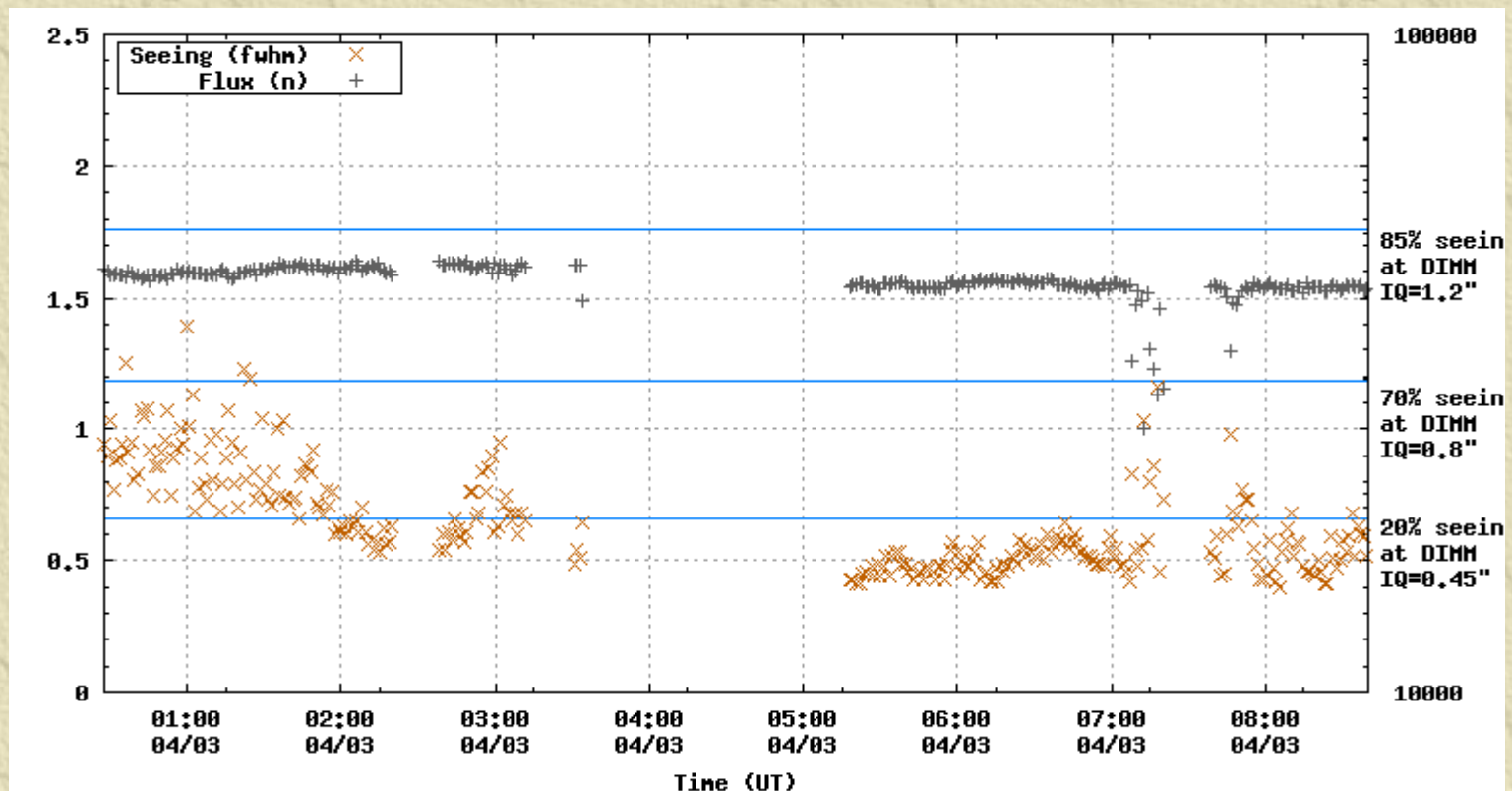
<http://www.ctio.noao.edu/site/lastpic.php>



Ferramentas para Gerenciar as Observações: Seeing

Há um pequeno telescópio dedicado a monitorar o seeing próximo do zênite:

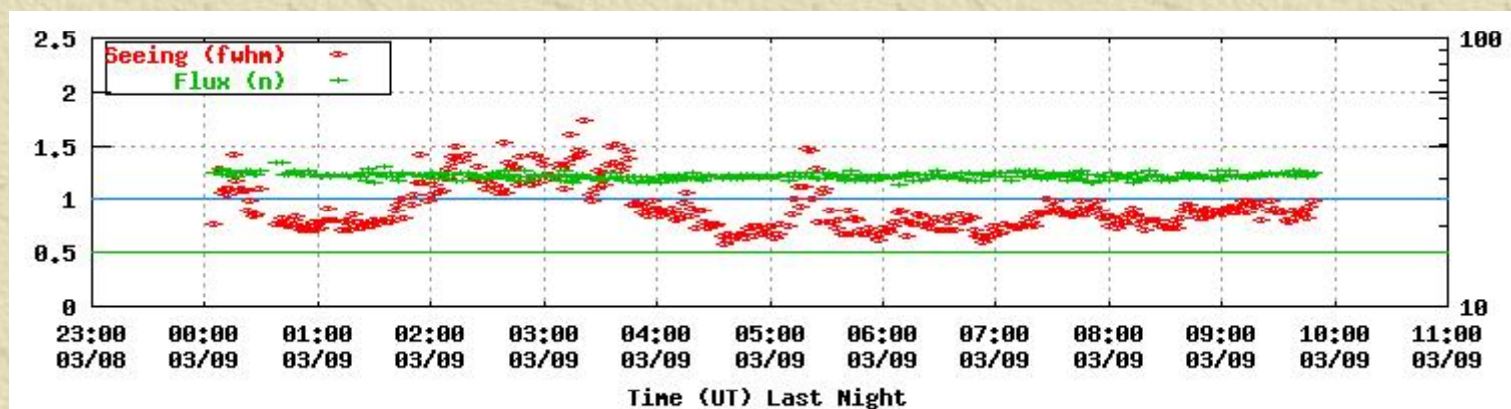
<http://139.229.34.57/seeingmonitor/webserver/seeing.html>



Ferramentas para Gerenciar as Observações: Meteorologia

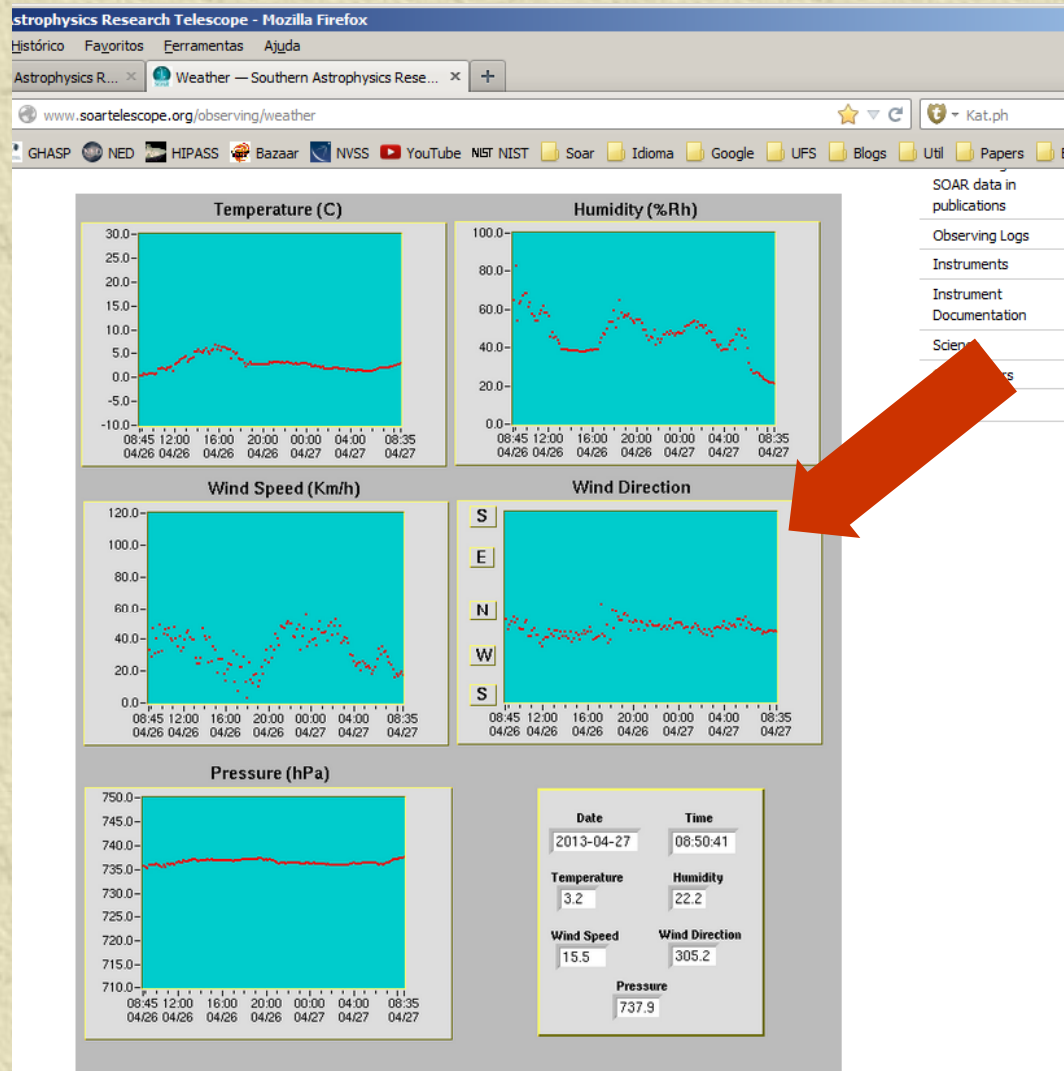
Alternativamente pode-se utilizar o seeing-monitor do Tololo.

<http://www.ctio.noao.edu/enviro/viron.html>



Ferramentas para Gerenciar as Observações: Seeing

Há também um monitoramento constante de ventos e umidade pelo site do SOAR:



Depois



Relatório de Fim de Noite

End-of-night report: SOAR Telescope

This form should be completed and submitted by the scheduled **observer** at the end of every night's observing, even if no observations are made. This form provides important feedback by which we might improve or maintain good service.

Restaurar valores

Which **instrument** did you use?

Local **date**, start of night
(Format: YYYY MM DD)

People
Please indicate who was present at the telescope during the night.

Submitter (who are you?)

Observer

Institution (where are you from?)

Observer's **email address**
A copy of this report will be sent to this address. Separate multiple addresses with a comma.

Observing **assistant**

Others present

Weather
Please indicate the conditions experienced during the night.

Weather types experienced
(Check all that apply, in netscape click an item to highlight it, in MS/IE, hold down the control key while clicking to select multiple items.)

Clear
Thin Cloud
Partly Cloudy
Overcast
Rain
Snow
Hail
Wind
High Humidity

If possible, please quote seeing experienced at the telescope, not simply from the chart shown by the seeing monitor:
Median **seeing at the telescope**

Seeing **variability**

Time distribution
How much time was spent doing science, engineering work, fixing problems, or staring at the clouds? (Please be as exact as you can.)

At least one is required

Hours Spent **Observing**
Time spent on sky and working normally, normal overheads included.

Hours Spent on **ToO**
Time spent on any ToO program interruption.

Hours Spent on **Engineering**
Time spent on scheduled engineering and technical work.

Hours Lost to System **Failures**
Time lost to breakdowns, failures and unanticipated engineering work.

Hours Lost to Bad **Weather**
Time lost to adverse conditions beyond the control of the observatory.

Operations
How well did the night go?

General **Disposition of Night**:

Weather
Please indicate the conditions experienced during the night.

Weather types experienced
(Check all that apply, in netscape click an item to highlight it, in MS/IE, hold down the control key while clicking to select multiple items.)

Clear
Thin Cloud
Partly Cloudy
Overcast
Rain
Snow
Hail
Wind
High Humidity

If possible, please quote seeing experienced at the telescope, not simply from the chart shown by the seeing monitor:
Median **seeing at the telescope**

Seeing **variability**

Time distribution
How much time was spent doing science, engineering work, fixing problems, or staring at the clouds? (Please be as exact as you can.)

At least one is required

Hours Spent **Observing**
Time spent on sky and working normally, normal overheads included.

Hours Spent on **ToO**
Time spent on any ToO program interruption.

Hours Spent on **Engineering**
Time spent on scheduled engineering and technical work.

Hours Lost to System **Failures**
Time lost to breakdowns, failures and unanticipated engineering work.

Hours Lost to Bad **Weather**
Time lost to adverse conditions beyond the control of the observatory.

Operations
How well did the night go?

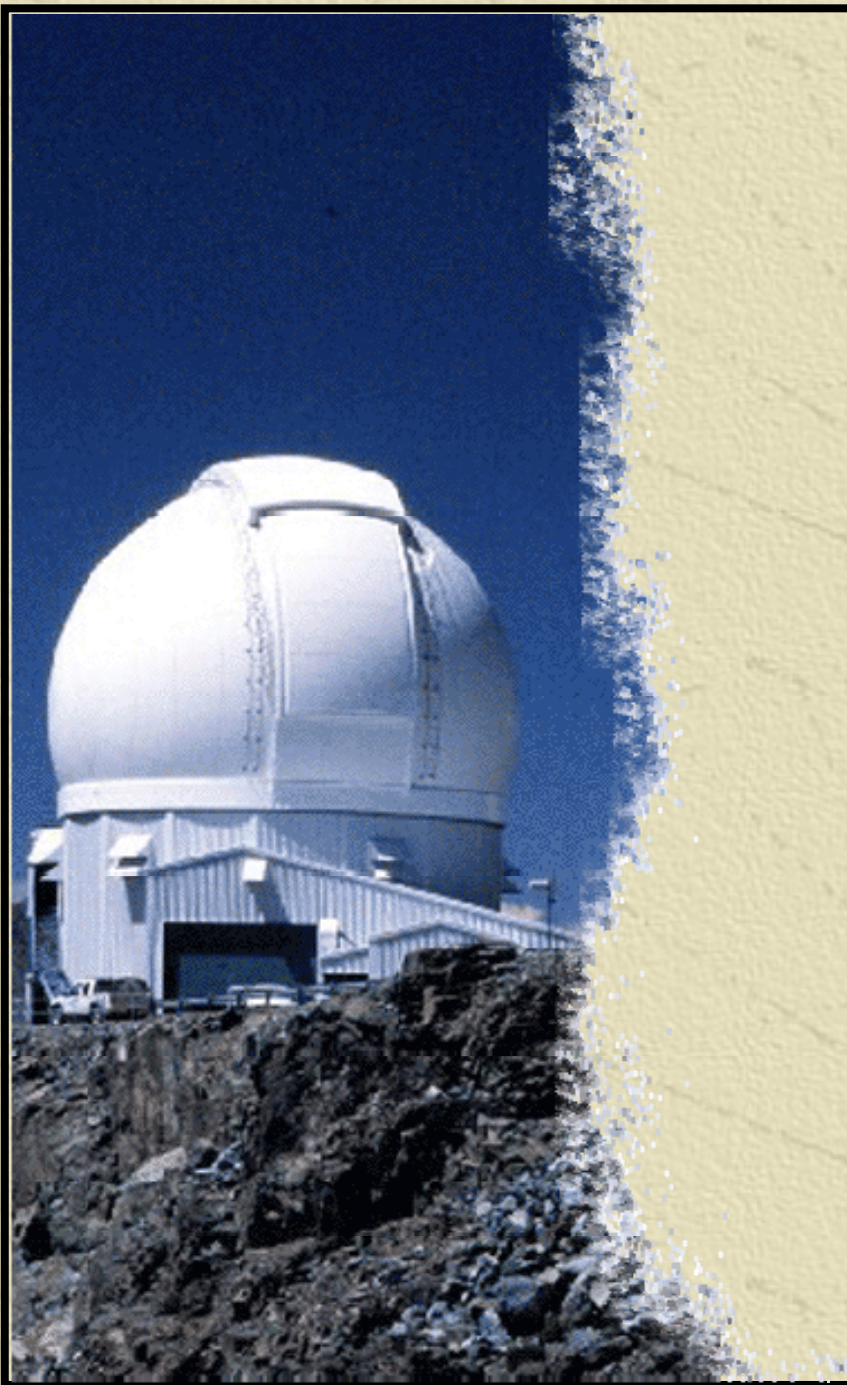
General **Disposition of Night**:

Please provide

- 1) a summary of any technical problems,
- 2) any general comments and
- 3) any great results you may have obtained on this night.
- 4) A brief Summary of any **ToO** (which program and how much time used).
- 5) Any requests for data and setup for tomorrow during the day.

Note: full details of technical failures should be entered in the [GNATS](#) problem reporting system, normally by the night assistant. If you are commenting on any specific problems encountered, please ask the night assistant if they have been reported.

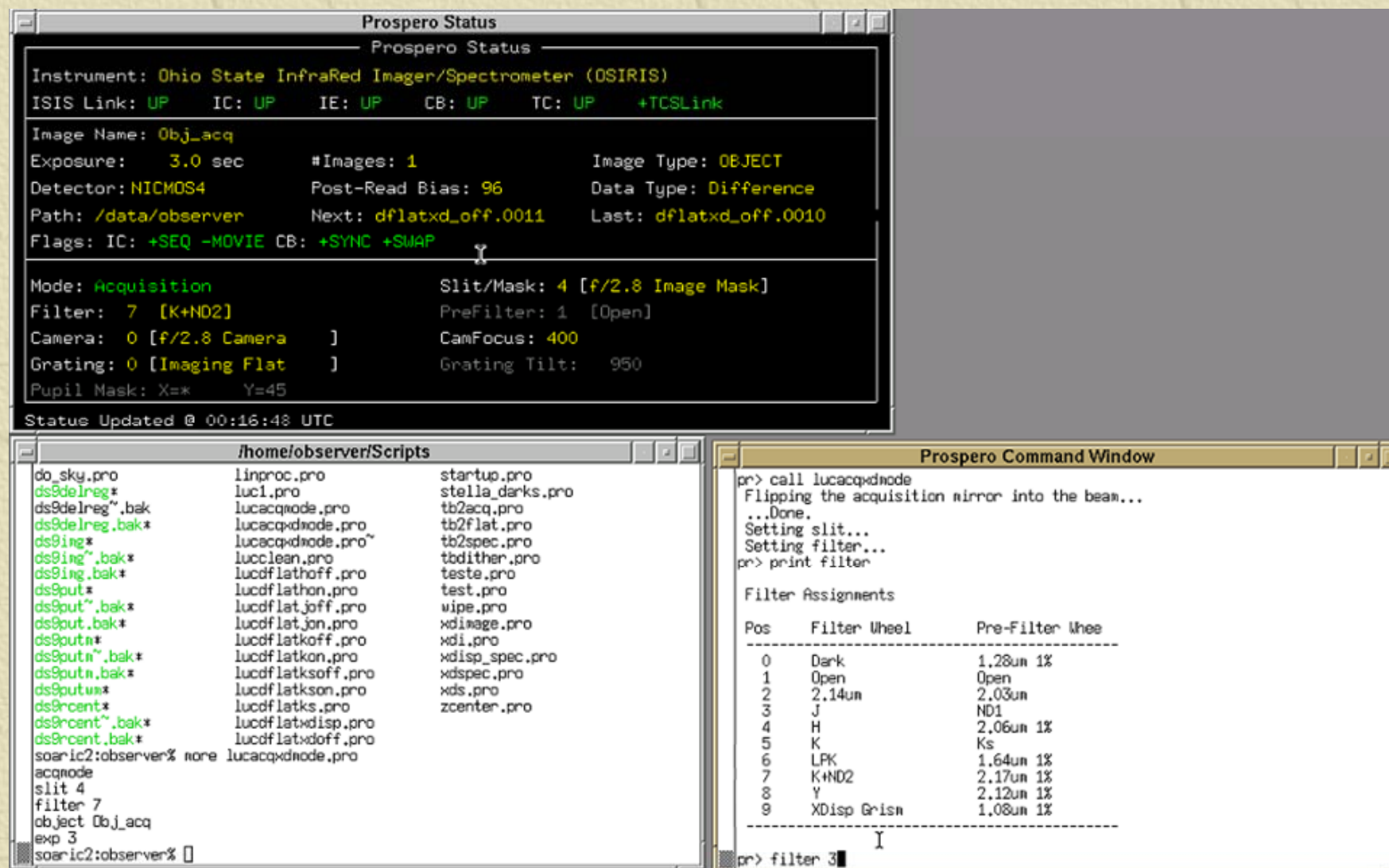
 webmaster@ctio.noao.edu
This page last modified July 28 2010 23:02 



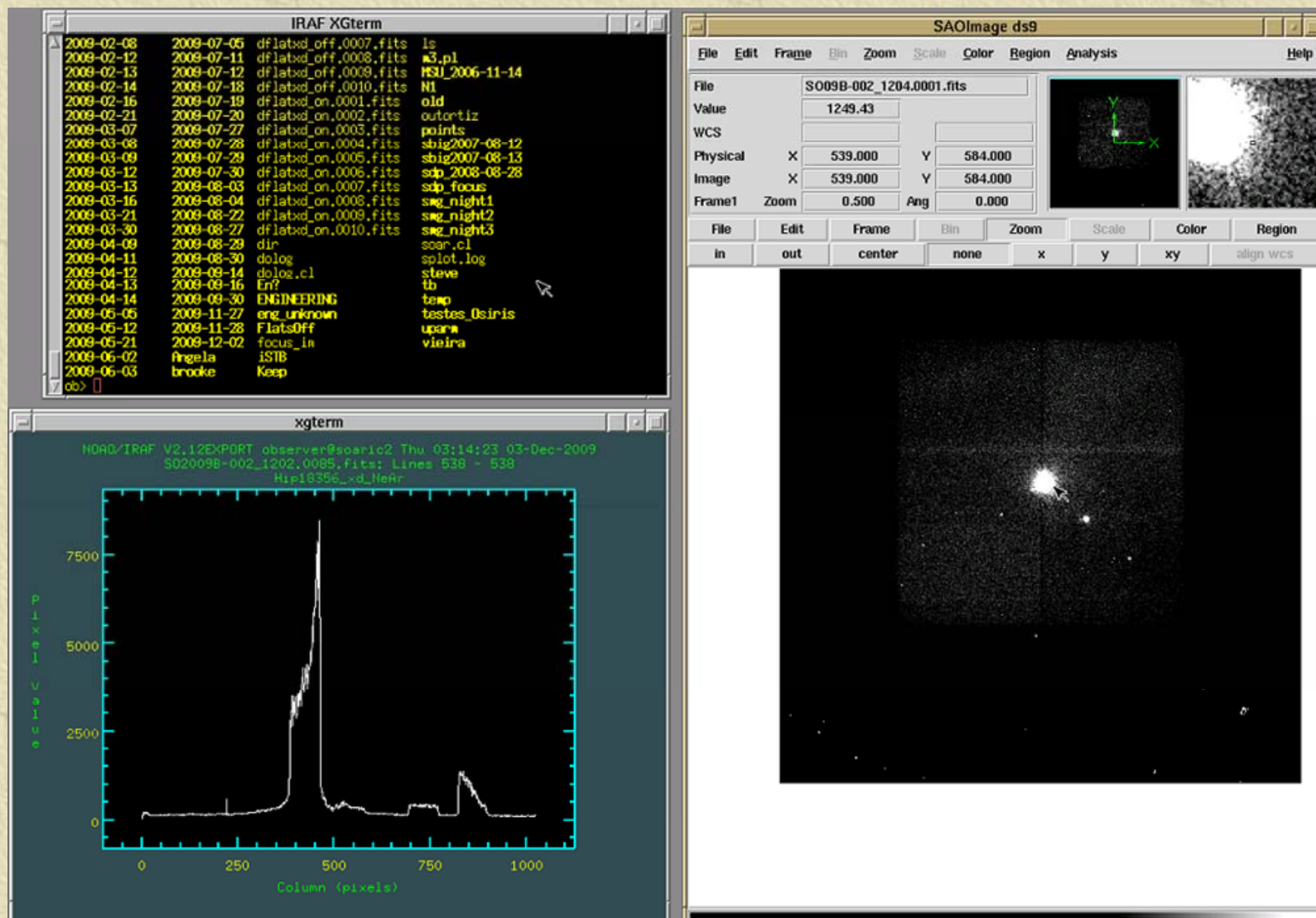
Panorama Geral sobre o
OSIRIS e a Spartan

Sergio Scarano Jr
27/042013

“Interface Gráfica” do OSIRIS

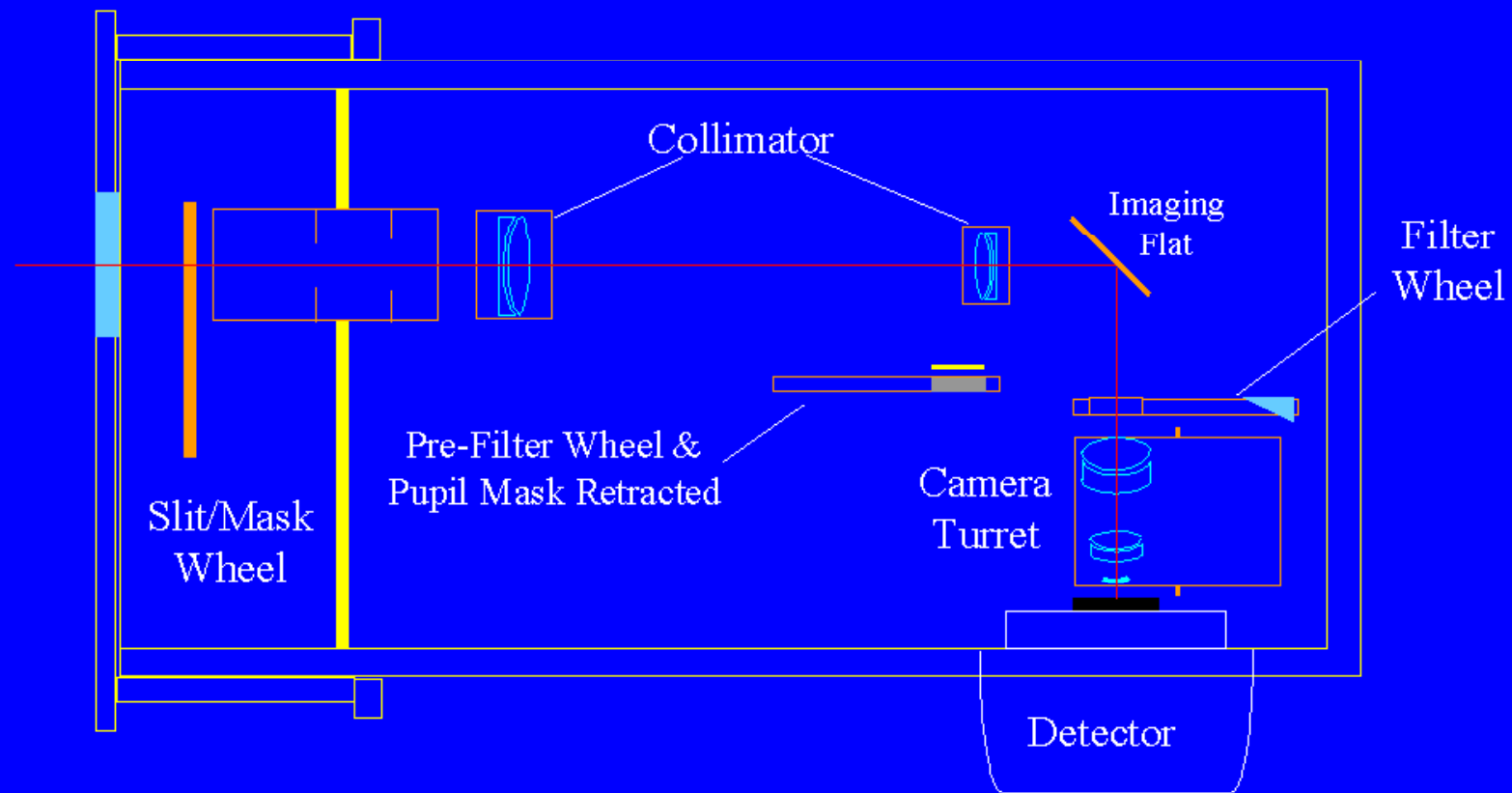


Seção para Análise de Dados



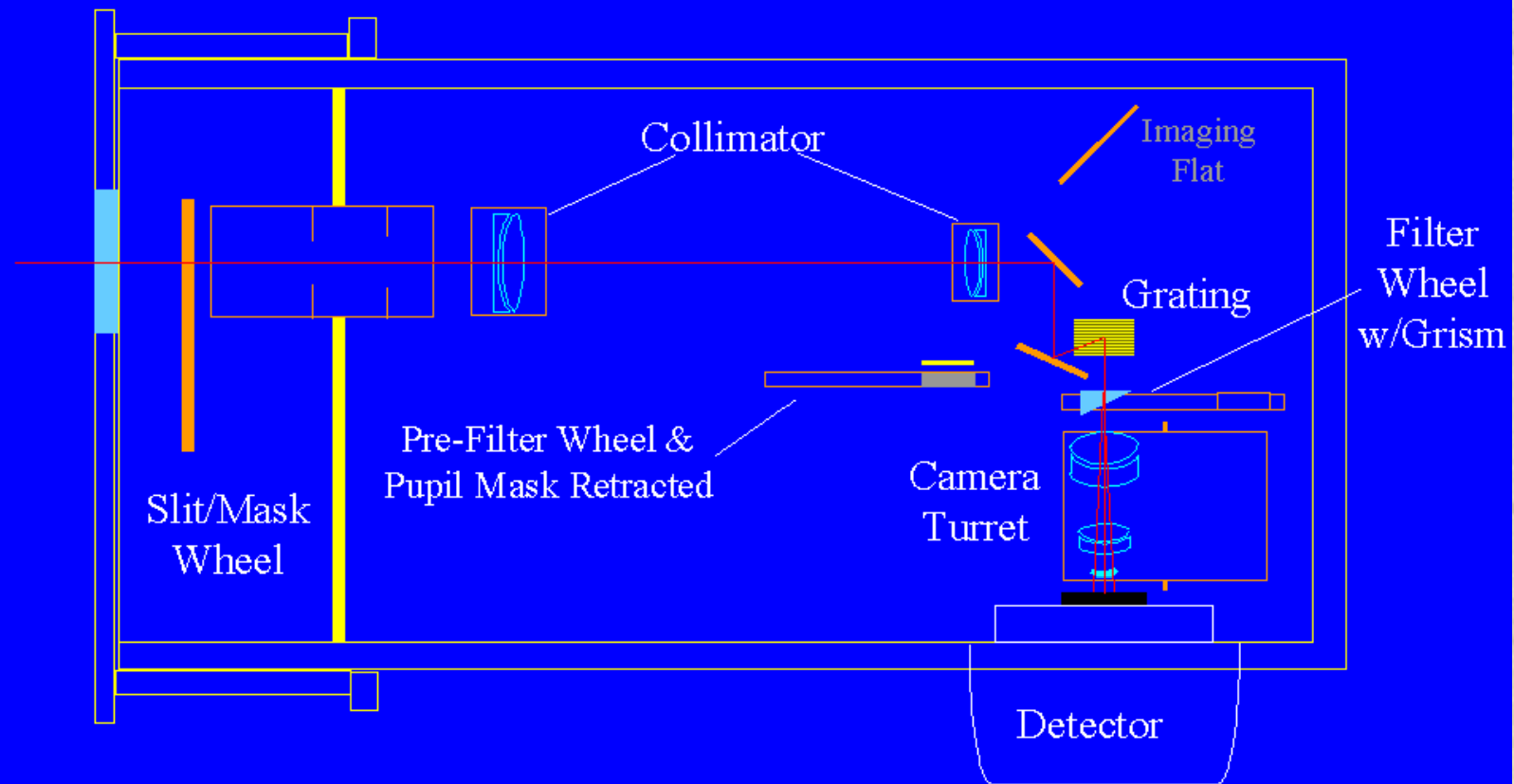
Instrumento em Modo Aquisição

OSIRIS Acquisition Mode

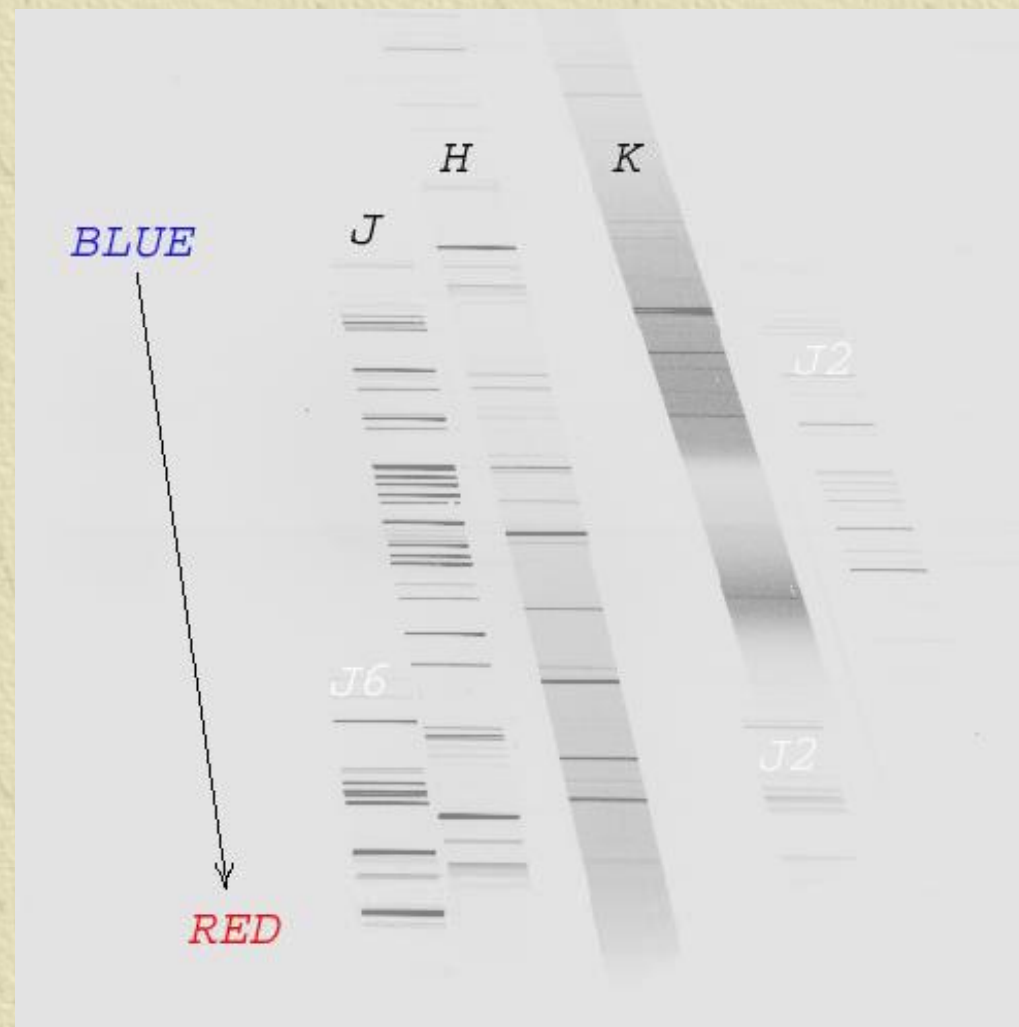


Instrumento em Modo XD

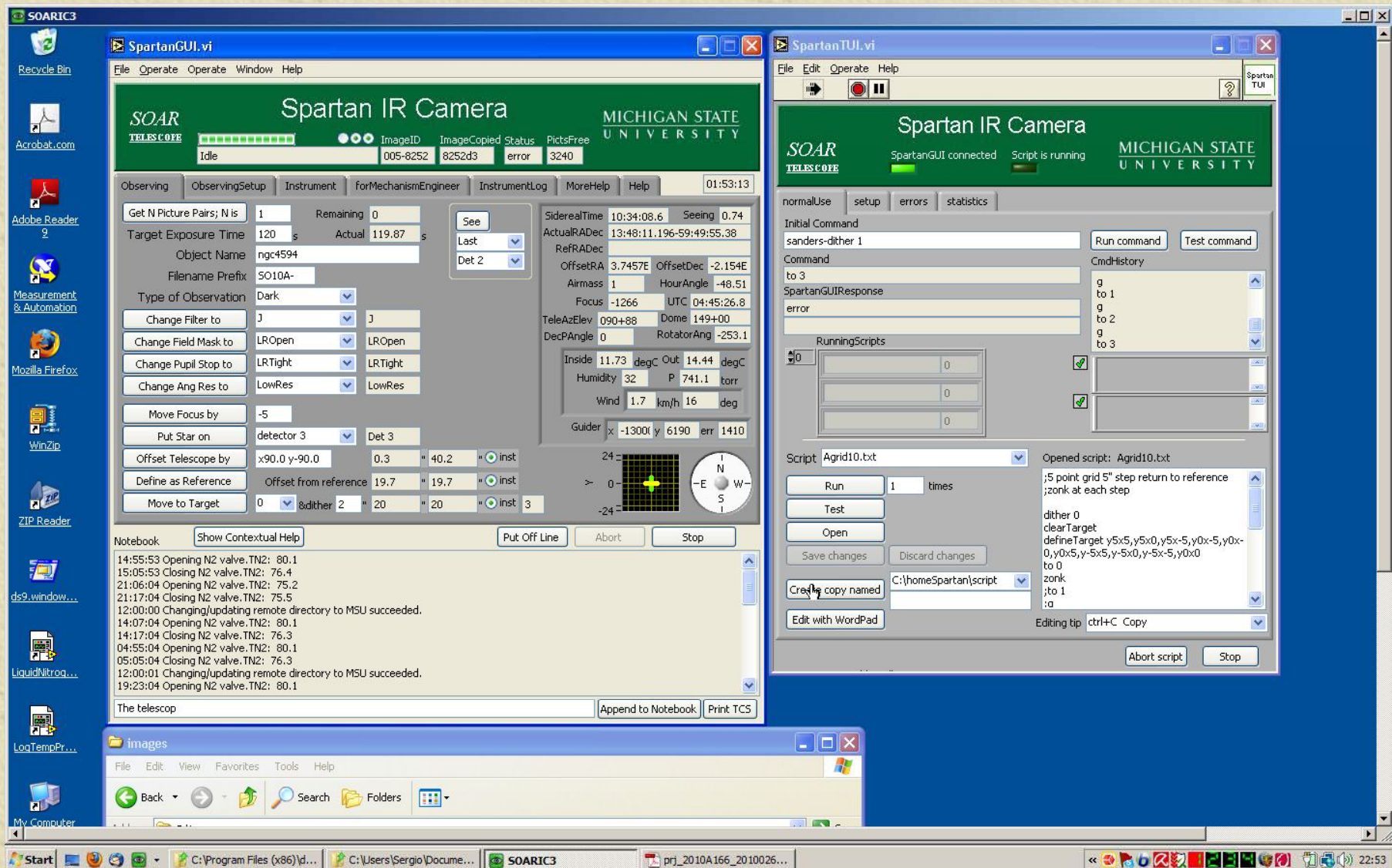
OSIRIS Cross-Dispersed Mode



Mapa do Espectro XD



Interface Gráfica da SPARTAN



Detalhes da Interface Gráfica da SPARTAN

SpartanGUI.vi

File Operate Operate Window Help

SOAR **Spartan IR Camera** **MICHIGAN STATE UNIVERSITY**

TELES COPE ImageID ImageCopied Status PictsFree

Idle 005-8252 8252d3 error 3240

Observing ObservingSetup Instrument forMechanismEngineer InstrumentLog MoreHelp Help 01:53:13

Get N Picture Pairs; N is 1 Remaining 0

Target Exposure Time 120 s Actual 119.87 s

Object Name ngc4594

Filename Prefix SO10A-

Type of Observation Dark

Change Filter to J J

Change Field Mask to LROpen LROpen

Change Pupil Stop to LRTight LRTight

Change Ang Res to LowRes LowRes

Move Focus by -5

Put Star on detector 3 Det 3

Offset Telescope by x90.0 y-90.0 0.3 " 40.2 " inst

Define as Reference Offset from reference 19.7 " 19.7 " inst

Move to Target 0 &dither 2 " 20 " 20 " inst 3

See

Last

Det 2

SiderealTime 10:34:08.6 Seeing 0.74

ActualRADec 13:48:11.196-59:49:55.38

RefRADec

OffsetRA 3.7457E OffsetDec -2.154E

Airmass 1 HourAngle -48.51

Focus -1266 UTC 04:45:26.8

TeleAzElev 090+88 Dome 149+00

DecPAngle 0 RotatorAng -253.1

Inside 11.73 degC Out 14.44 degC

Humidity 32 P 741.1 torr

Wind 1.7 km/h 16 deg

Guider x -1300 y 6190 err 1410

24

> 0

-24

Notebook Show Contextual Help Put Off Line Abort Stop

```

14:55:53 Opening N2 valve.TN2: 80.1
15:05:53 Closing N2 valve.TN2: 76.4
21:06:04 Opening N2 valve.TN2: 75.2
21:17:04 Closing N2 valve.TN2: 75.5
12:00:00 Changing/updating remote directory to MSU succeeded.
14:07:04 Opening N2 valve.TN2: 80.1
14:17:04 Closing N2 valve.TN2: 76.3
04:55:04 Opening N2 valve.TN2: 80.1
05:05:04 Closing N2 valve.TN2: 76.3
12:00:01 Changing/updating remote directory to MSU succeeded.
19:23:04 Opening N2 valve.TN2: 80.1
    
```

The telescope Append to Notebook Print TCS

Mudando Filtros na SPARTAN

SpartanGUI.vi

File Operate Operate Window Help

SOAR **Spartan IR Camera** **MICHIGAN STATE UNIVERSITY**

TELES COPE ■■■■■■■■■■ ●●● ImageID 005-8252 ImageCopied 8252d3 Status error PictsFree 3240

Idle

Observing ObservingSetup Instrument forMechanismEngineer InstrumentLog MoreHelp Help 01:53:13

Get N Picture Pairs; N is 1 Remaining 0

Target Exposure Time 120 s Actual 119.87 s

Object Name ngc4594

Filename Prefix SO10A-

Type of Observation Dark

Change Filter to J

Change Field Mask to H

Change Pupil Stop to J

Change Ang Res to Y

Move Focus by HeI

Put Star on [FeII]

Offset Telescope by Cont1

Define as Reference 6

Move to Target 7

See

Last

Det 2

SiderealTime 10:34:08.6 Seeing 0.74

ActualRADec 13:48:11.196-59:49:55.38

RefRADec

OffsetRA 3.7457E OffsetDec -2.154E

Airmass 1 HourAngle -48.51

Focus -1266 UTC 04:45:26.8

TeleAzElev 090+88 Dome 149+00

DecPAngle 0 RotatorAng -253.1

Inside 11.73 degC Out 14.44 degC

Humidity 32 P 741.1 torr

Wind 1.7 km/h 16 deg

Guider x -1300 y 6190 err 1410

et 3

0.3 " 40.2 " inst

19.7 " 19.7 " inst

20 " 20 " inst 3

Put Off Line Abort Stop

Notebook Show Conte:

14:55:53 Opening N2 valve.TN

15:05:53 Closing N2 valve.TN

21:06:04 Opening N2 valve.TN

21:17:04 Closing N2 valve.TN

12:00:00 Changing/updating remote directory to MSU succeeded.

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04:55:04 Opening N2 valve.TN2: 80.1

05:05:04 Closing N2 valve.TN2: 76.3

12:00:01 Changing/updating remote directory to MSU succeeded.

19:23:04 Opening N2 valve.TN2: 80.1

The telescope

Append to Notebook Print TCS

Mudando Máscara na SPARTAN

SpartanGUI.vi

File Operate Operate Window Help

SOAR **Spartan IR Camera** **MICHIGAN STATE UNIVERSITY**

TELES COPE ██████████ ●●● ImageID 005-8252 ImageCopied 8252d3 Status error PictsFree 3240

Idle

Observing ObservingSetup Instrument forMechanismEngineer InstrumentLog MoreHelp Help 01:53:13

Get N Picture Pairs; N is 1 Remaining 0

Target Exposure Time 120 s Actual 119.87 s

Object Name ngc4594

Filename Prefix SO10A-

Type of Observation Dark

Change Filter to J J

Change Field Mask to Object LROpen

Change Pupil Stop to LRMasked LRTight

Change Ang Res to LROpen LowRes

Move Focus by

Put Star on detector 3 Det 3

Offset Telescope by x90.0 y-90.0 0.3 " 40.2 " inst

Define as Reference Offset from reference 19.7 " 19.7 " inst

Move to Target 0 &dither 2 " 20 " 20 " inst 3

See Last Det 2

SiderealTime 10:34:08.6 Seeing 0.74

ActualRADec 13:48:11.196-59:49:55.38

RefRADec

OffsetRA 3.7457E OffsetDec -2.154E

Airmass 1 HourAngle -48.51

Focus -1266 UTC 04:45:26.8

TeleAzElev 090+88 Dome 149+00

DecPAngle 0 RotatorAng -253.1

Inside 11.73 degC Out 14.44 degC

Humidity 32 P 741.1 torr

Wind 1.7 km/h 16 deg

Guider x -1300 y 6190 err 1410

24 -24

Put Off Line Abort Stop

Notebook Show Contextual Help

14:55:53 Opening N2 valve.TN2: 80.1
15:05:53 Closing N2 valve.TN2: 76.4
21:06:04 Opening N2 valve.TN2: 75.2
21:17:04 Closing N2 valve.TN2: 75.5
12:00:00 Changing/updating remote directory to MSU succeeded.
14:07:04 Opening N2 valve.TN2: 80.1
14:17:04 Closing N2 valve.TN2: 76.3
04:55:04 Opening N2 valve.TN2: 80.1
05:05:04 Closing N2 valve.TN2: 76.3
12:00:01 Changing/updating remote directory to MSU succeeded.
19:23:04 Opening N2 valve.TN2: 80.1

The telescope Append to Notebook Print TCS

Mudando a Pupila na SPARTAN

SpartanGUI.vi

File Operate Operate Window Help

SOAR **Spartan IR Camera** **MICHIGAN STATE UNIVERSITY**

TELES COPE ■■■■■■■■■■ ●●● ImageID ImageCopied Status PictsFree
Idle 005-8252 8252d3 error 3240

Observing ObservingSetup Instrument forMechanismEngineer InstrumentLog MoreHelp Help 01:53:13

Get N Picture Pairs; N is 1 Remaining 0

Target Exposure Time 120 s Actual 119.87 s

Object Name ngc4594

Filename Prefix SO10A-

Type of Observation Dark

Change Filter to J J

Change Field Mask to LROpen LROpen

Change Pupil Stop to LRTight LRTight

Change Ang Res to ☒ LRTight LowRes

Move Focus by

Put Star on

Offset Telescope by

Define as Reference

Move to Target

Det 3

0.3 " 40.2 " ☒ inst

19.7 " 19.7 " ☒ inst

20 " 20 " ☒ inst 3

Det 2

See

Last

Det 2

SiderealTime 10:34:08.6 Seeing 0.74

ActualRADec 13:48:11.196-59:49:55.38

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OffsetRA 3.7457E OffsetDec -2.154E

Airmass 1 HourAngle -48.51

Focus -1266 UTC 04:45:26.8

TeleAzElev 090+88 Dome 149+00

DecPAngle 0 RotatorAng -253.1

Inside 11.73 degC Out 14.44 degC

Humidity 32 P 741.1 torr

Wind 1.7 km/h 16 deg

Guider x -1300 y 6190 err 1410

24

0

-24

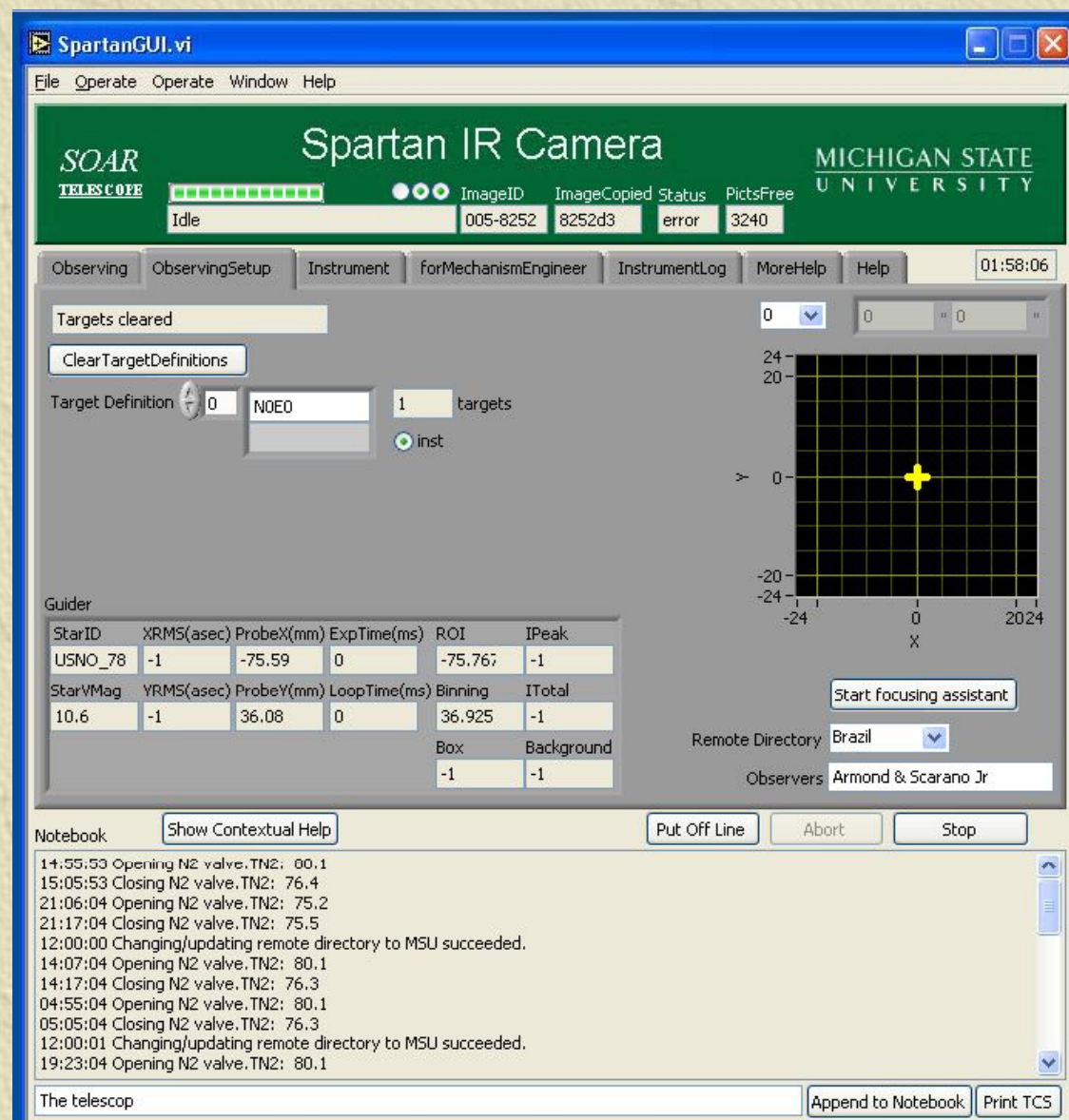
Put Off Line Abort Stop

Notebook Show Cont

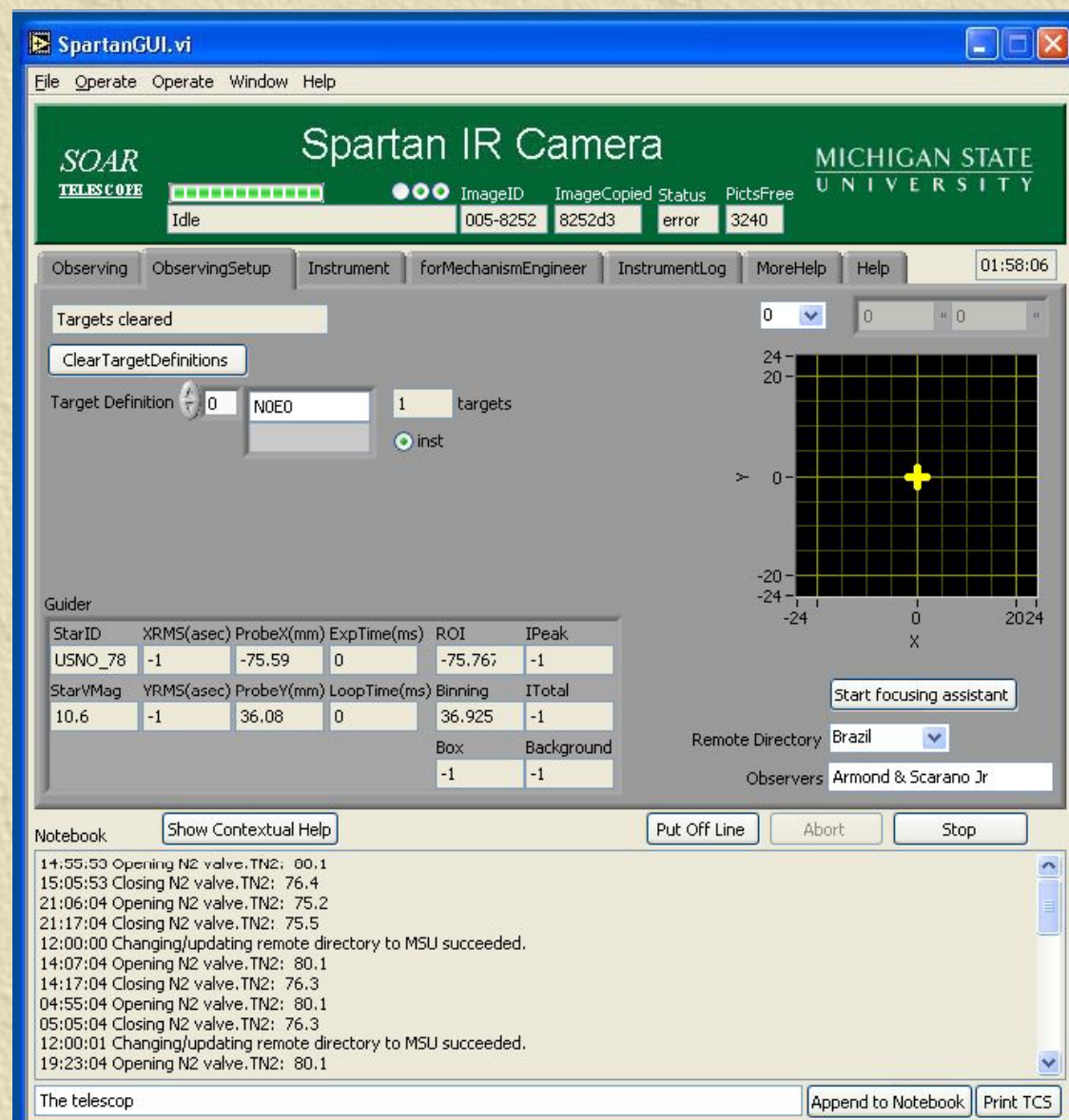
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05:05:04 Closing N2 valve.TN2: 76.3
12:00:01 Changing/updating remote directory to MSU succeeded.
19:23:04 Opening N2 valve.TN2: 80.1

The telescope Append to Notebook Print TCS

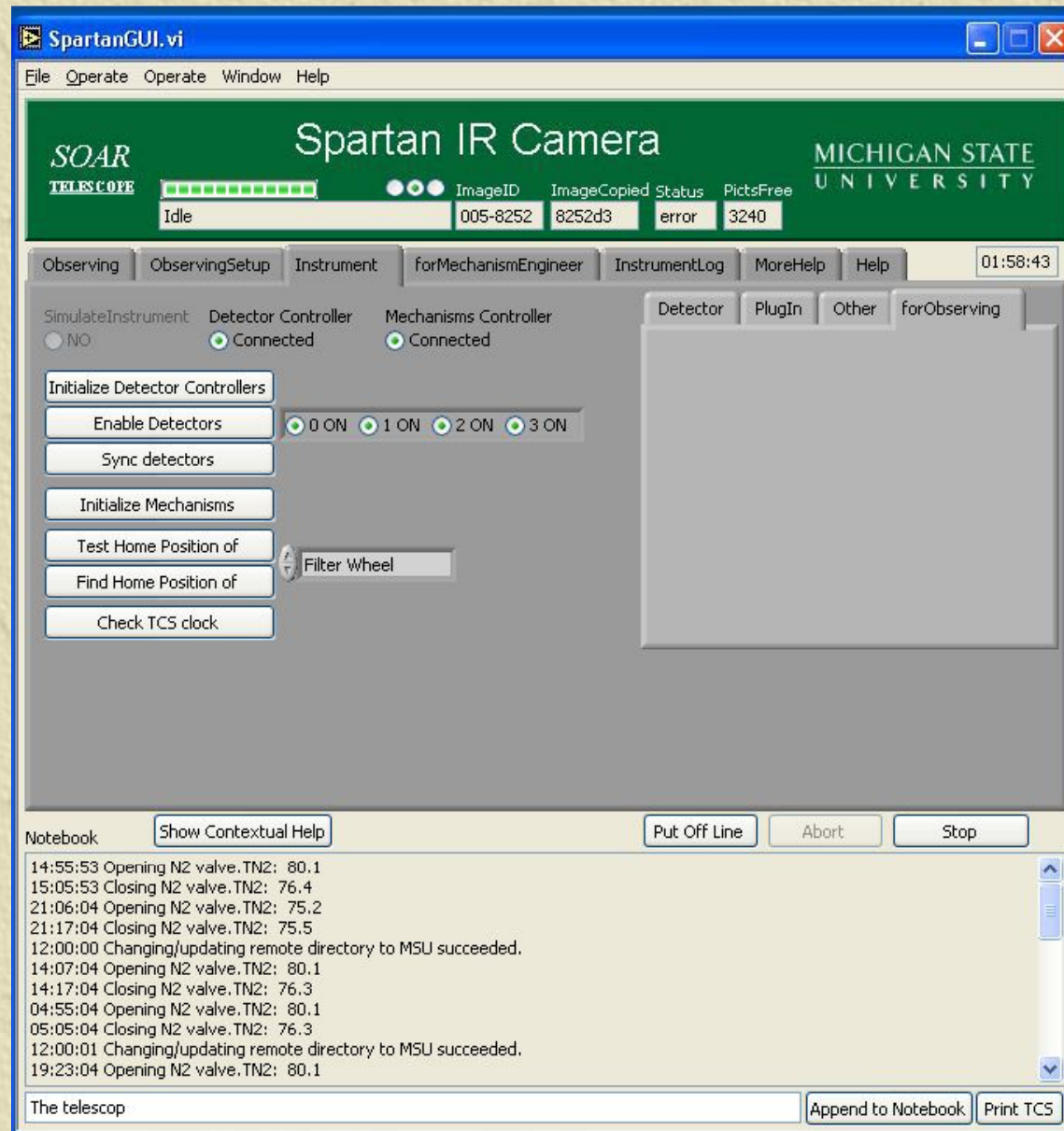
Detalhes da Interface Gráfica da SPARTAN



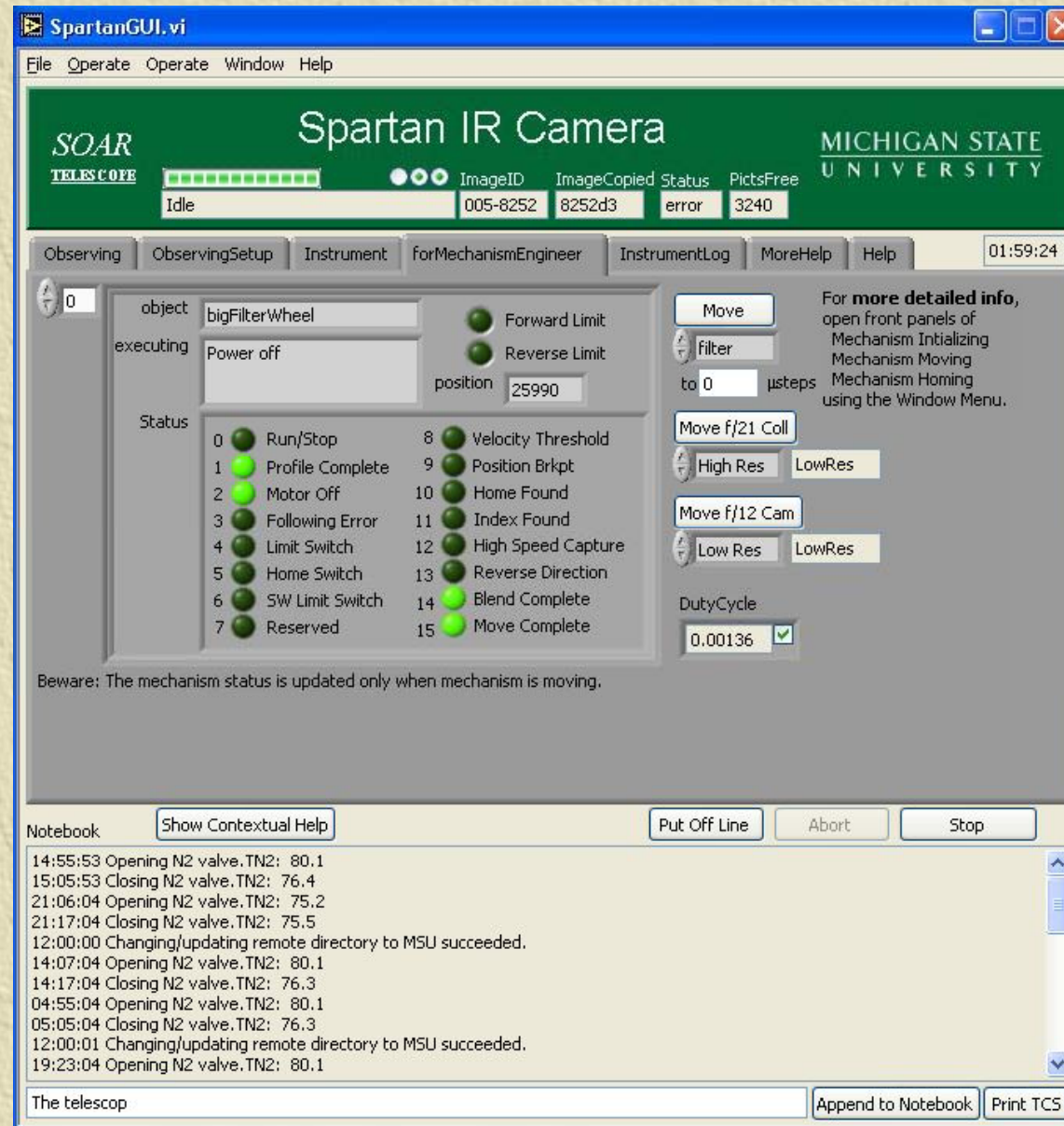
Detalhes da Interface Gráfica da SPARTAN



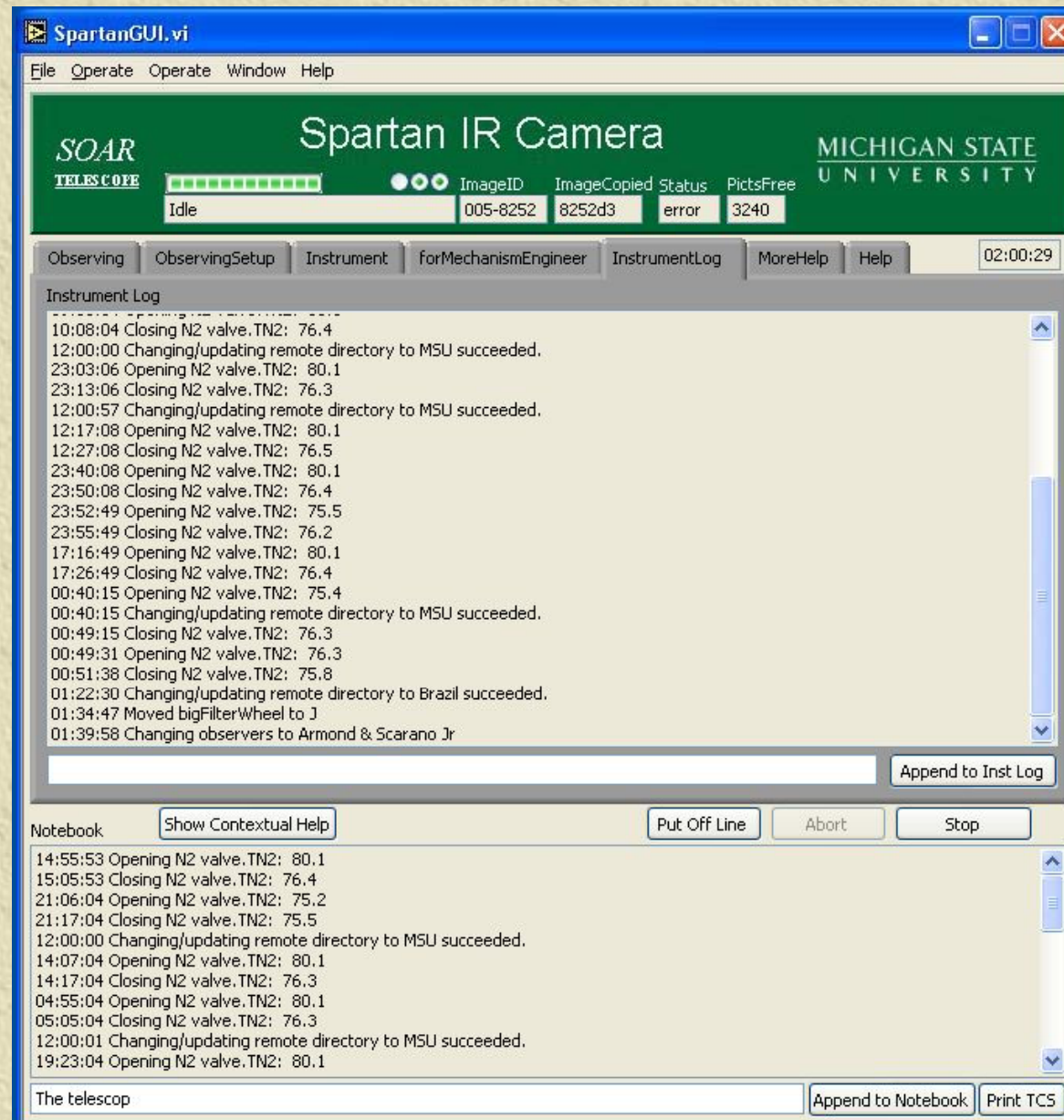
Detalhes da Interface Gráfica da SPARTAN



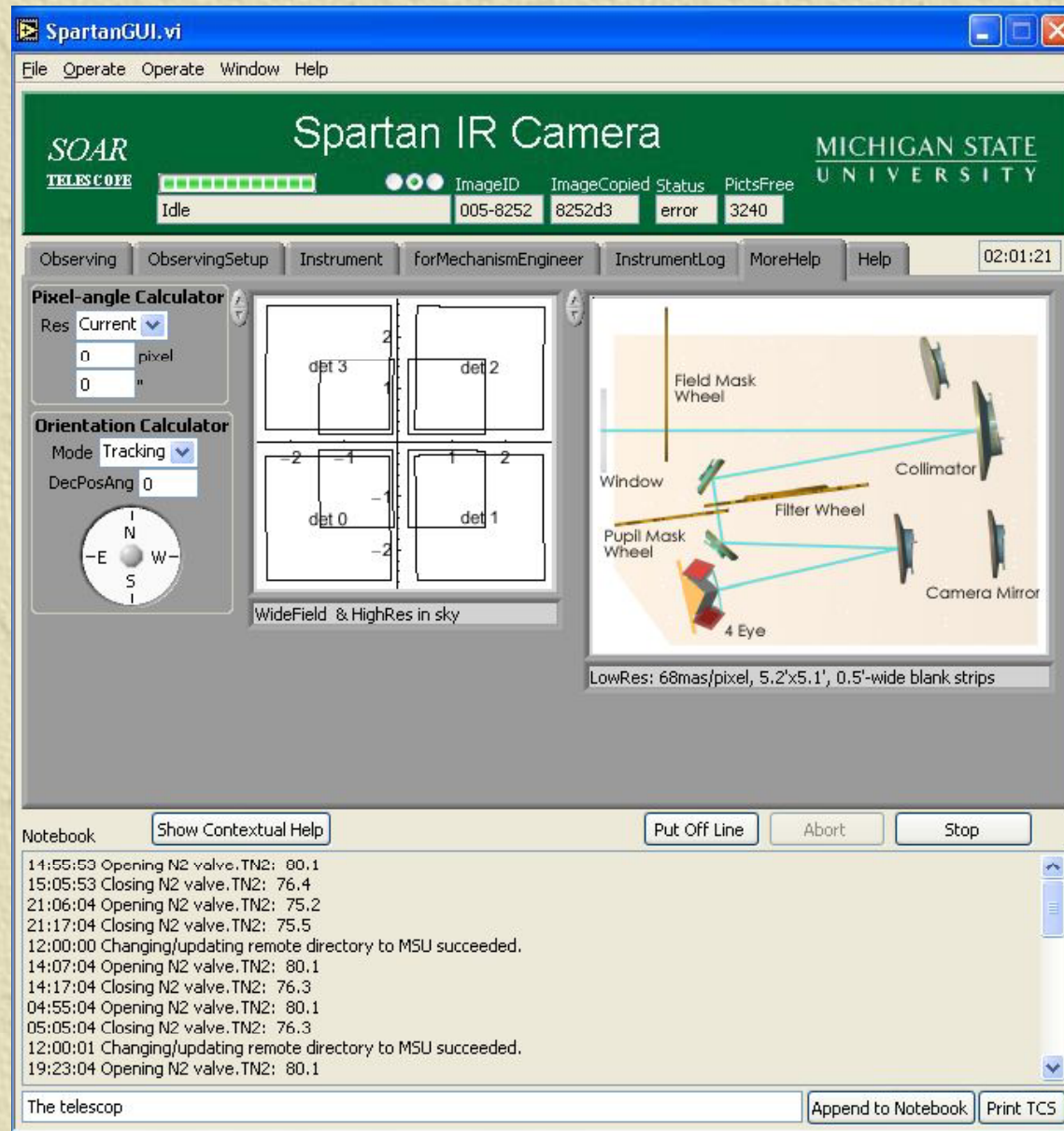
Detalhes da Interface Gráfica da SPARTAN



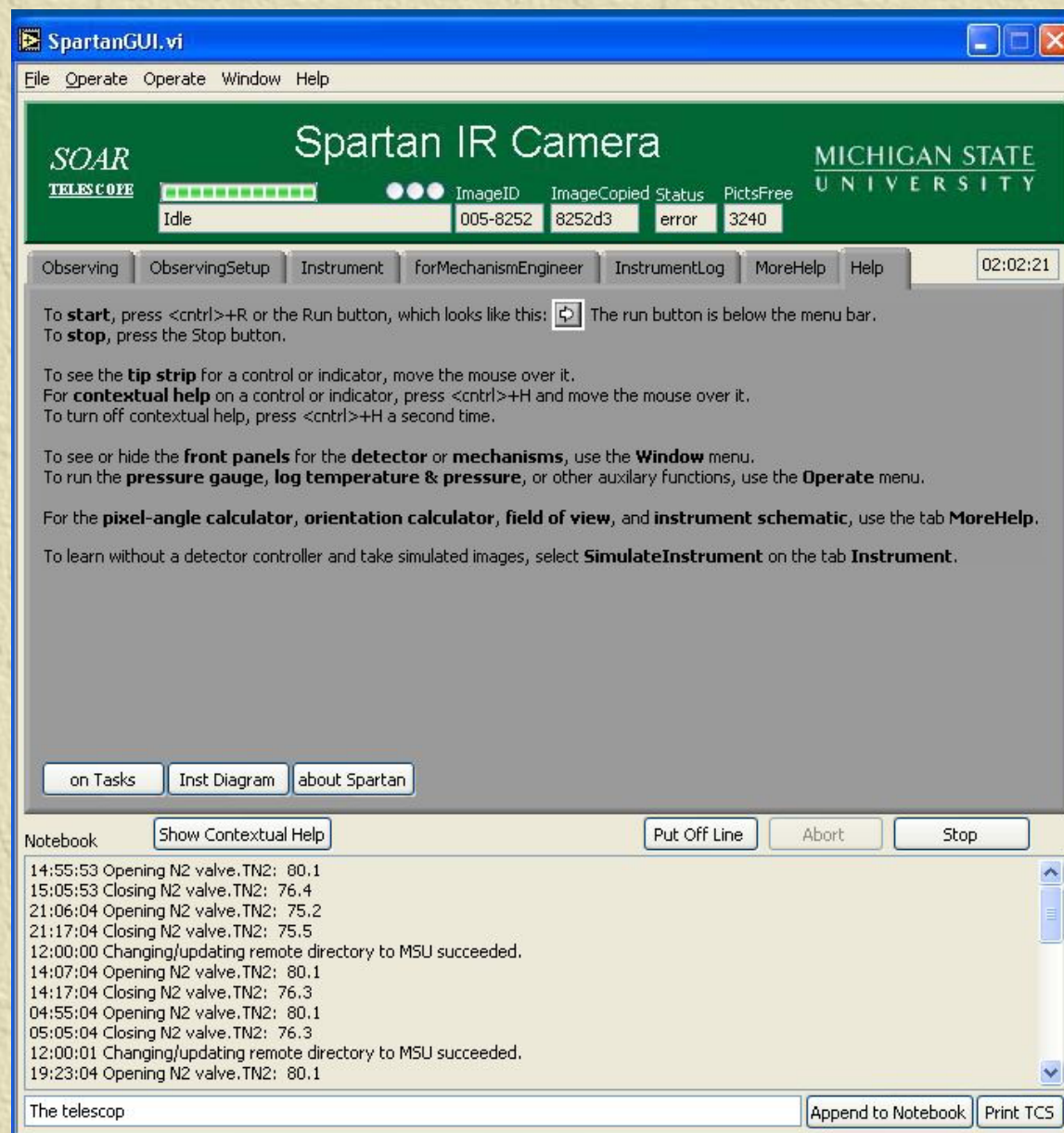
Detalhes da Interface Gráfica da SPARTAN



Detalhes da Interface Gráfica da SPARTAN



Detalhes da Interface Gráfica da SPARTAN



Executando Scripts na SPARTAN

