

MMIRS PDR

Welcome and Introduction

Brian McLeod

PDR Agenda

08:45 Start of PDR

Welcome, Introductions, Science Overview
MMIRS Concept Overview
Optical Design & Analysis
Optical Mounts

Brian McLeod
George Nystrom
Paul Martini
George Nystrom

10:15 (15 min)

BREAK

Guider-Wavefront Sensor
MMIRS Electrical Design
Software

Brian McLeod
Mike Burke
John Roll

12:00 (45 min)

LUNCH

12:45 Cryostat Design – MOS Section

MOS Section Design (Mechanisms, LN2, Vacuum)

Ken McCracken

14:00 (15 min)

BREAK

Cryostat Design - Camera Section
Camera Section Design (Mechanisms, LN2, Vacuum
Vacuum Vessel & Detector Mount
Detector Assembly and Electronics
Structural Analysis
Thermal Analysis

Justin Holwell

John Geary
Henry Bergner
Sang Park

15:30 Management, Schedule & Wrap Up

Tim Norton

- Team members
- Science drivers
- Basic operational modes
- Heritage from other instruments
- SWIRC status

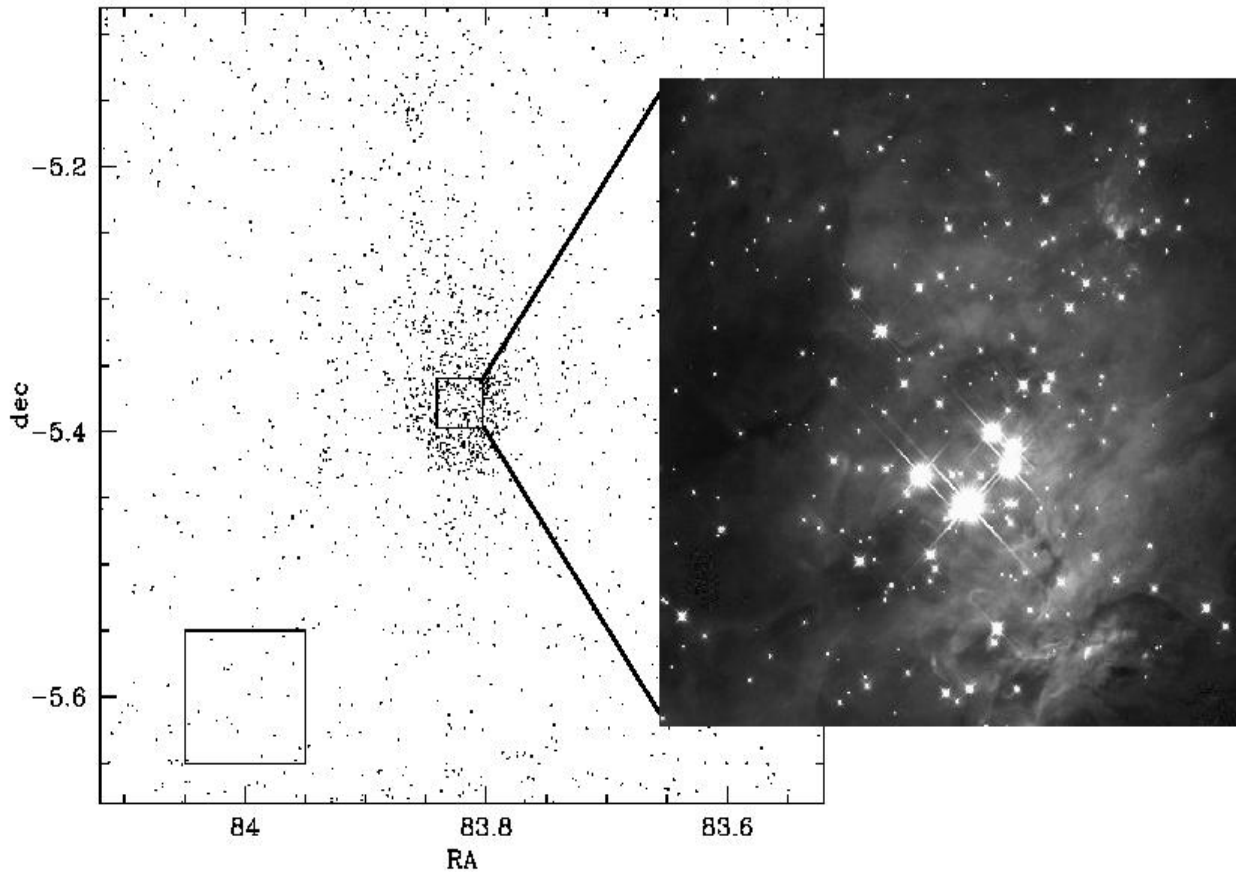
Science Team members

- Brian McLeod, PI
- Daniel Fabricant, Co-Investigator (SAO)
- John Geary, Co-Investigator (SAO)
- Paul Martini, Postdoctoral fellow (SAO)
- Steve Eikenberry, Co-Investigator (Univ. of Florida)
- Patrick McCarthy, Co-Investigator (Carnegie Observatories)
- Eric Persson, Co-Investigator (Carnegie Observatories)
- Harland Epps, Optical design consultant

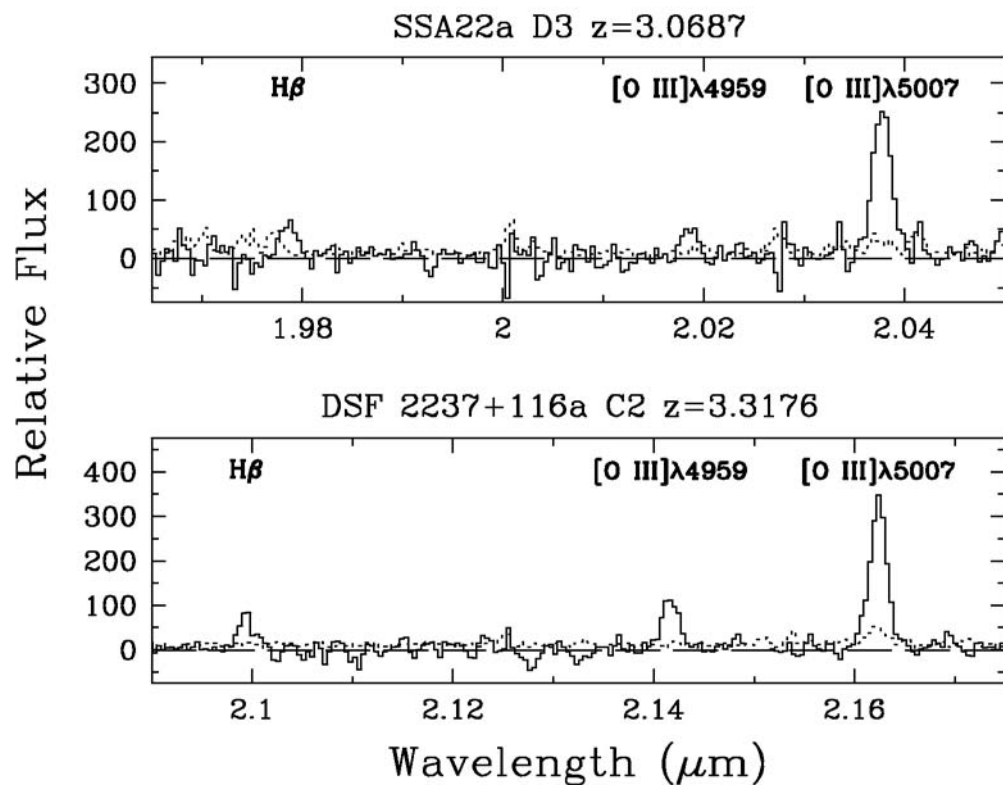
Management and Engineering Team members

- Timothy Norton, Program manager
- George Nystrom, Program engineer
- Kenneth McCracken, Mechanical engineer
- Justin Holwell, Mechanical engineer
- Michael Burke, Electrical engineer
- Tom Gauron, Electrical engineer
- Robert Fata, Structural Lead engineer
- Henry Bergner, Structural engineer
- Sang Park, Thermal engineer
- John Roll, Software engineer
- Maureen Conroy, Software engineer
- Jeff Julian, Engineering advisor (Univ. of Florida)

Science Drivers – Brown dwarfs



Science Drivers – Star formation at high redshift



Basic Operational Modes

- Imaging
 - 7 x 7 arcminute FOV
 - 0.2 arcsecond pixels
 - Y, J, H & K wavelength coverage
- Spectroscopy
 - Multi-slit (4'x7') or longslit (7')
 - J, H, K @ R=3000
 - J+H, H+K @ R=1400

Heritage

- Basic concept and mechanisms from Flamingos & Flamingos 2 (Univ. of Florida)
- PMAC Motor control software from existing MMT instruments
- Array readout electronics and software from Megacam CCD mosaic

SWIRC Prototype

- J,H direct imager w/ 0.15"/pixel
- Effort led by W. Brown and J. Geary
- Currently uses 4-channel controller
- To be upgraded to 32 channel controller later this summer
- Observing run scheduled for 29 June