

2022年2月12日-3月10日 Poker Flat (Alaska) 訪問レポート LAMP観測ロケット実験

February 12- March 10, 2021
Poker Flat (Alaska) visit report
LAMP sounding rocket



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概要 Abstract

- LAMP (Loss through Auroral Microburst Pulsation) 観測ロケットを、米国アラスカ州・ポーカーフラットリサーチレンジから打ち上げました。
- 高エネルギー電子観測器 (HEP)、2台のオーロラカメラ (AIC)、磁力計 (MIM)の4機器からなる観測器パッケージ PARM2 (Pulsating AuRora and Microburst 2)を搭載しました。
- ロケットは活発に変化する脈動オーロラに突入することに成功し、初期的な分析からは、各観測機器が順調に稼働し、観測データを取得したことが確認されました。
- LAMP (Loss through Auroral Microburst Pulsation) sounding rocket experiment was conducted at the Poker Flat Research Range, Alaska, USA.
- The rocket carried the PARM2 (Pulsating AuRora and Microburst 2) instrument package, which consists of four instruments: a high-energy electron detector (HEP), two auroral imaging cameras (AIC), and a magnetometer (MIM).
- The rocket successfully entered the actively changing pulsating aurora, and initial analysis confirmed that each instrument operated and acquired observation data.

ロケット頭胴部 Rocket Payload

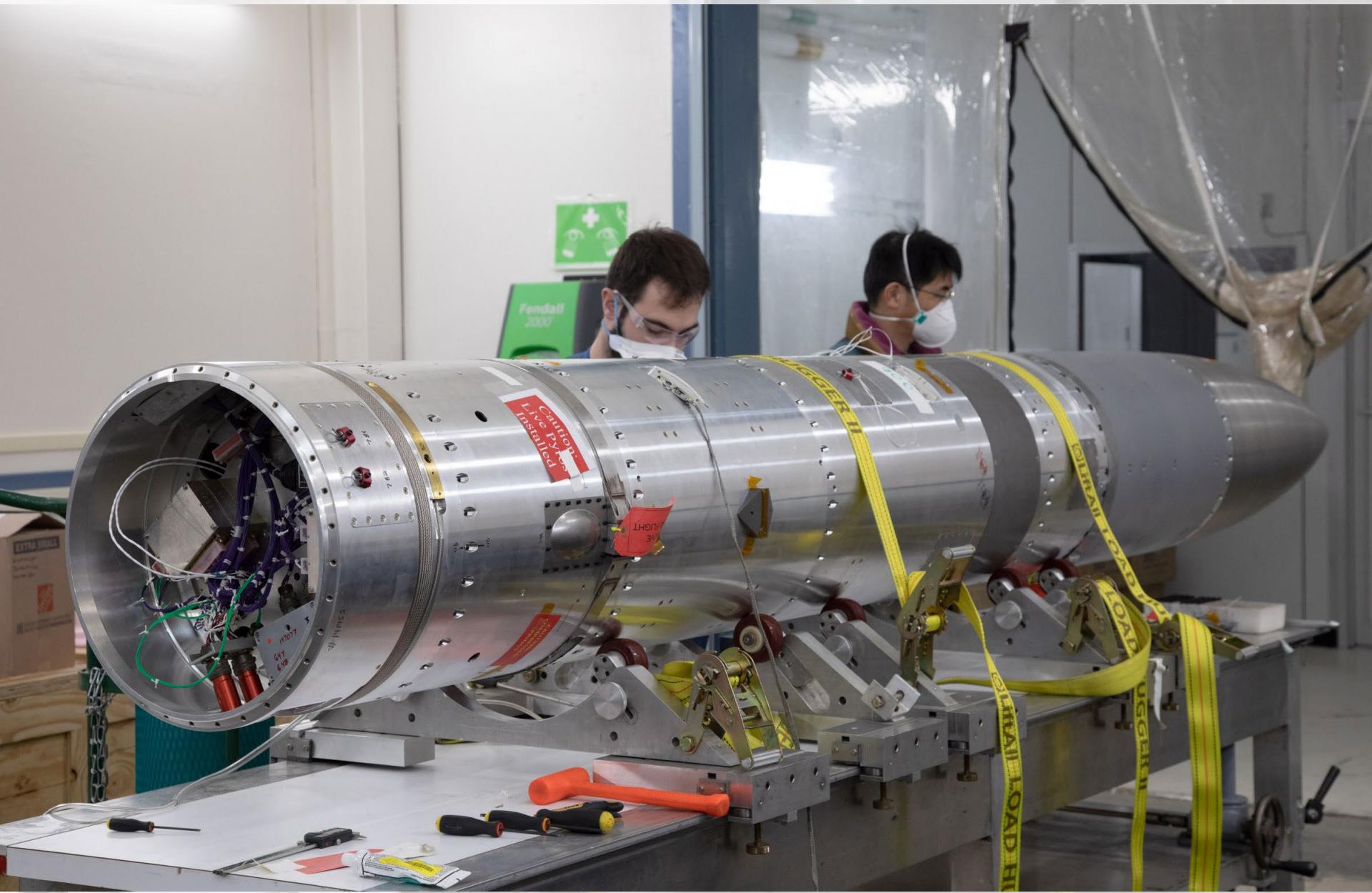


Photo by Terry Zaperach/NASA

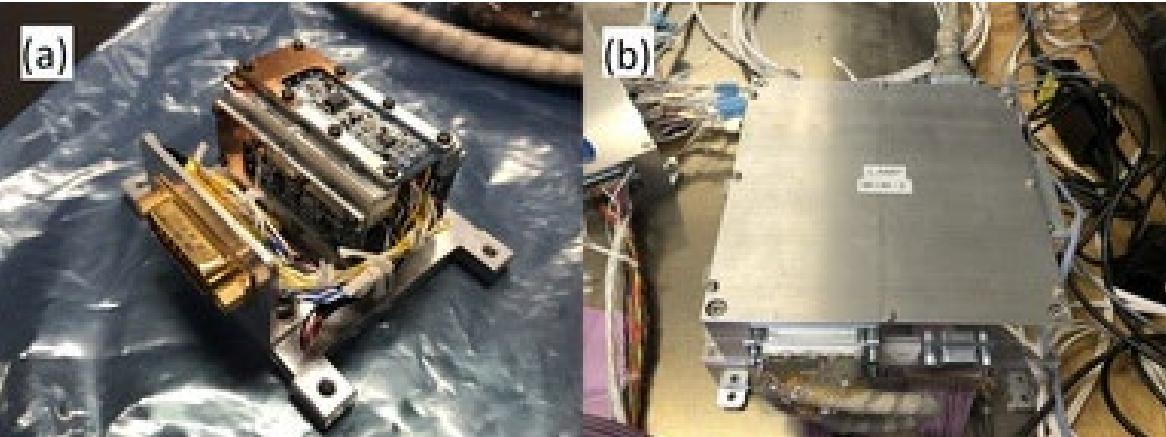
<https://www.gi.alaska.edu/news/rocket-launch-poker-flat-probe-mysterious-pulsating-aurora>

搭載機器 Instruments

MIM

Magneto-Impedance Magnetometer

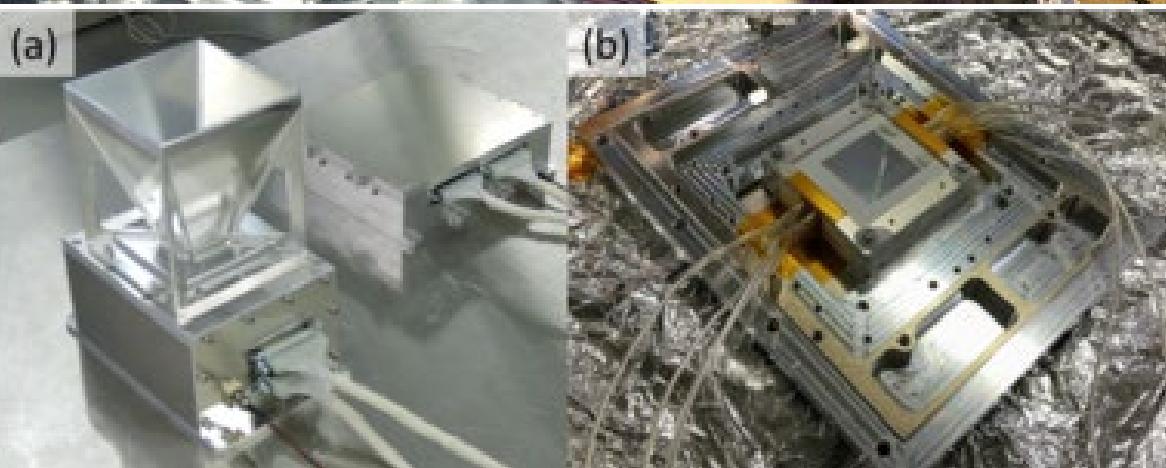
Flight model of (a) MIM-S and (b) MIM-E.



HEP

High Energy Particle detector

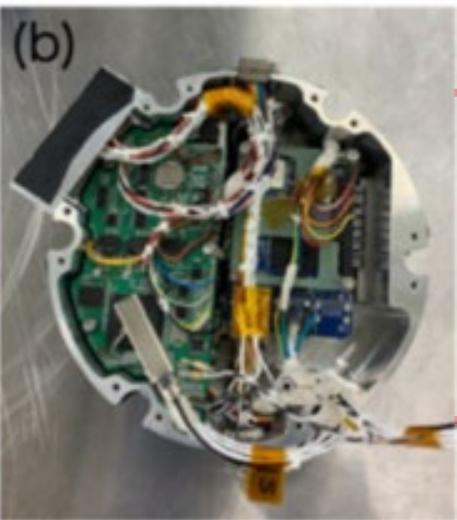
(a) HEP - flight model, (b) Stacked SSDs in HEP.



(a)



(b)



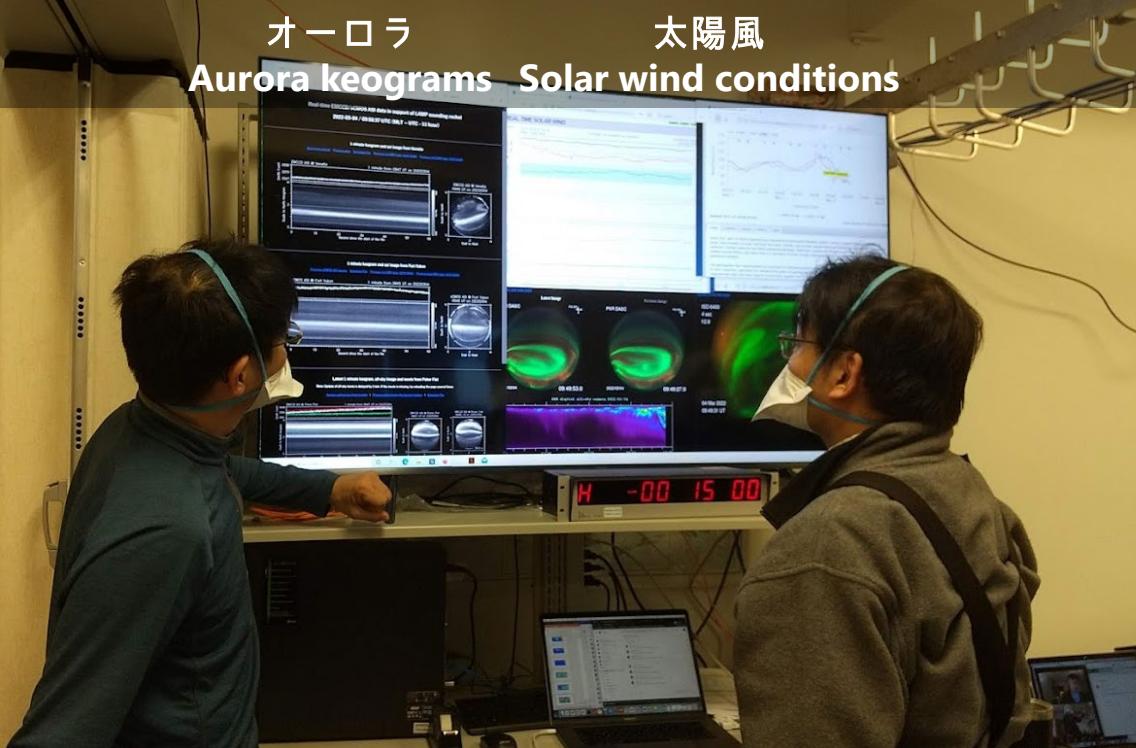
AIC

Auroral Imaging Camera

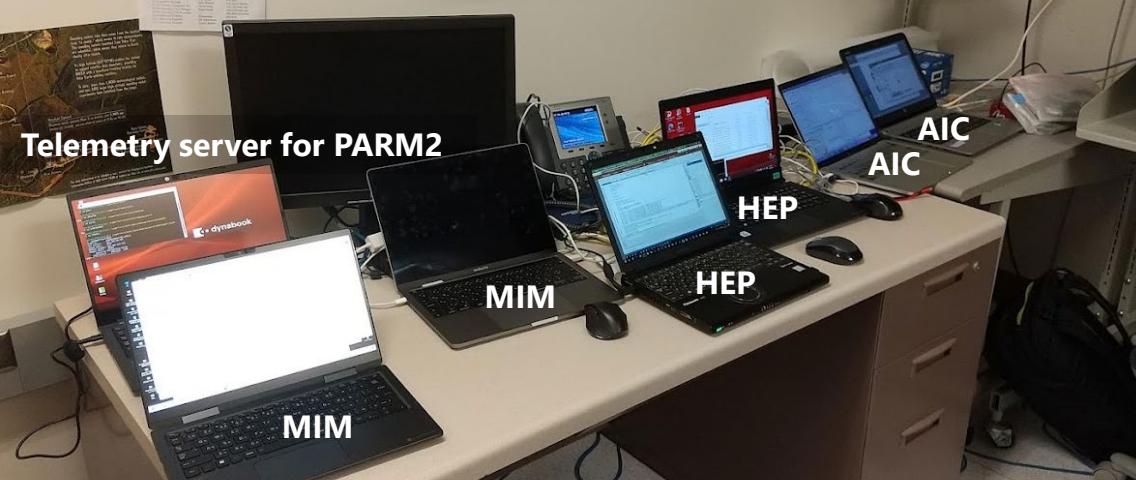
(a) AIC – flight model, (b) Electronics and heat pipes in AIC.

オーロラ
Aurora keograms

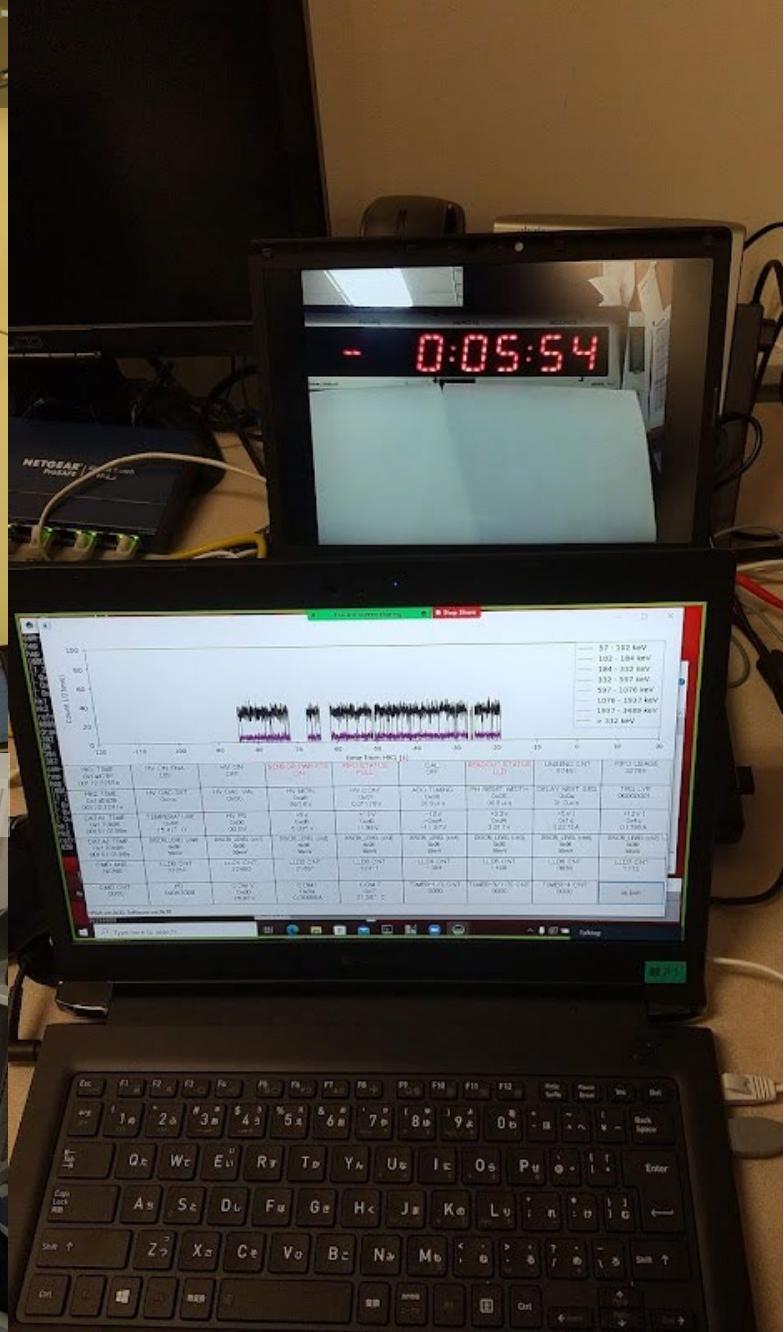
太陽風
Solar wind conditions



Computers for PARM2 in Science Operation Center



オペレーションセンターにて In Science Operation Center





ROCKET LAUNCH

02:27 A.M. AKST MAR, 5, 2022

11:27 A.M. UT MAR, 5, 2022

FROM POKER FLAT RESEARCH RANGE

ロケット打ち上げ時の映像は下のリンクから！
Video of the rocket launch can be seen at the link.
<https://www.youtube.com/watch?v=B3c08YCAxIg>



オーロラ *Aurorae*

Photos by Takeshi Sakanoi



Food Meals

* Consuming raw or undercooked meats may increase your risk of food borne illness

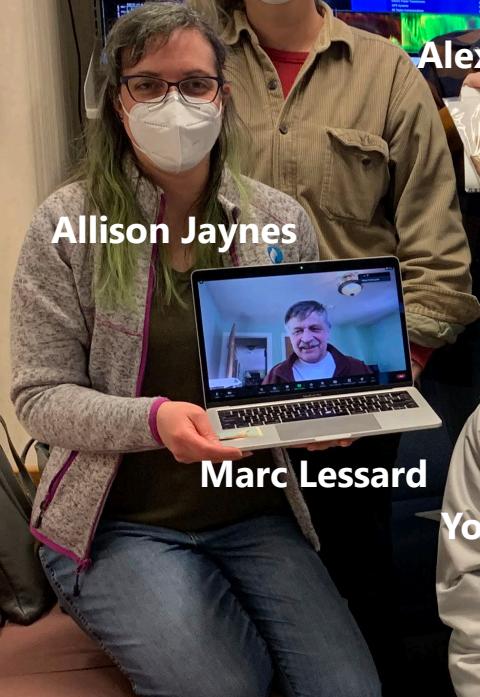
All Dinners Include 1 trip to Salad Bar and choice of Baked Potato Or Rice



アラスカの風景 From Alaska

ベネタイのオーロラ
Venetie keogram

Kristina Lynch



Allison Jaynes



Marc Lessard



Jules van Irsel



Alexa Halford



Dominic Puopolo

能勢 正仁

Masahito Nose

滑川 拓

Taku Namekawa



Mykhaylo Shumko



三好 由純
Yoshizumi Miyoshi



坂野井 健
Takeshi Sakano



浅村 和史
Kazushi Asamura