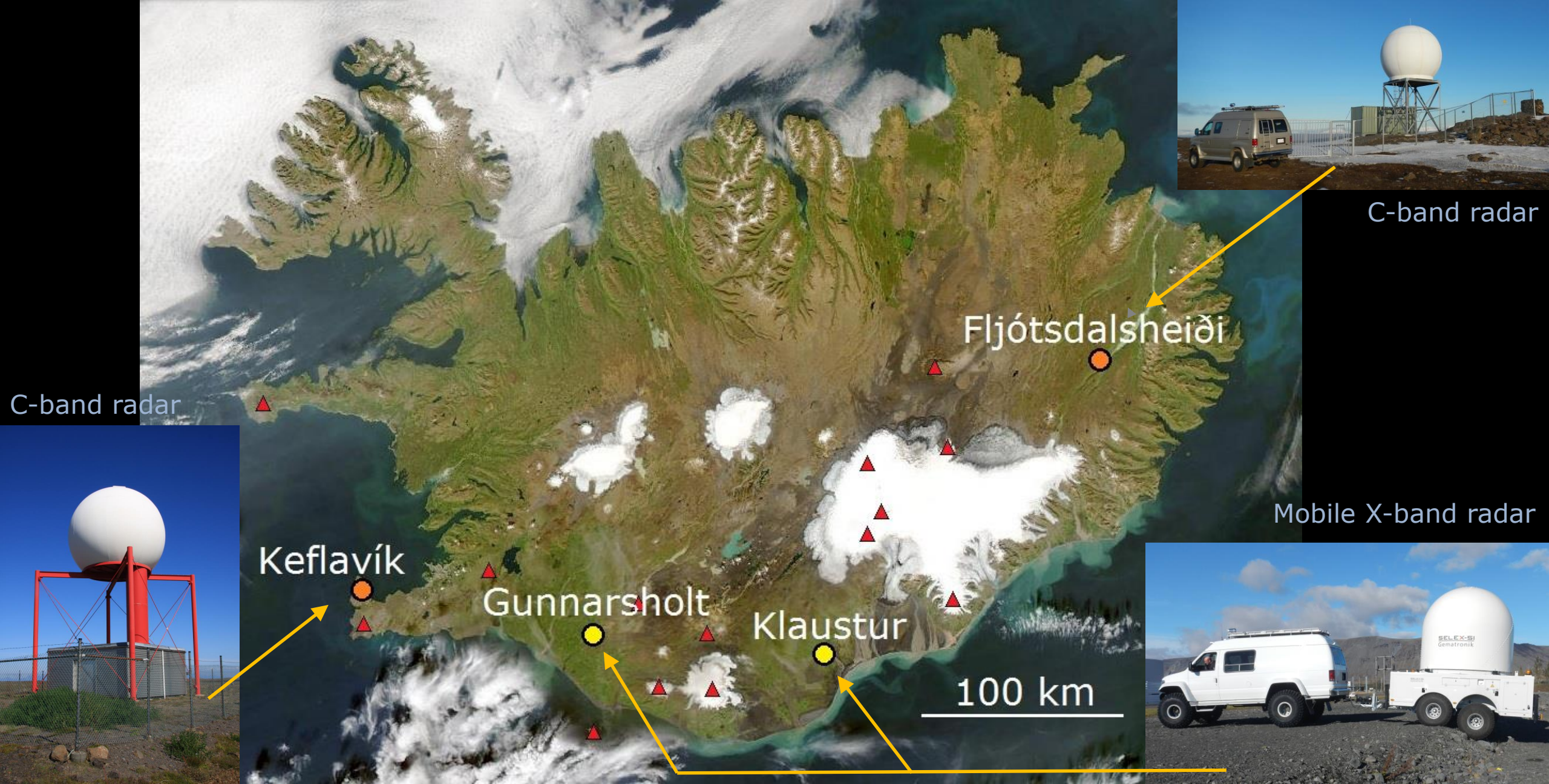

National Report on the Icelandic Weather Radar Network

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Major Events

October 2018 – September 2019

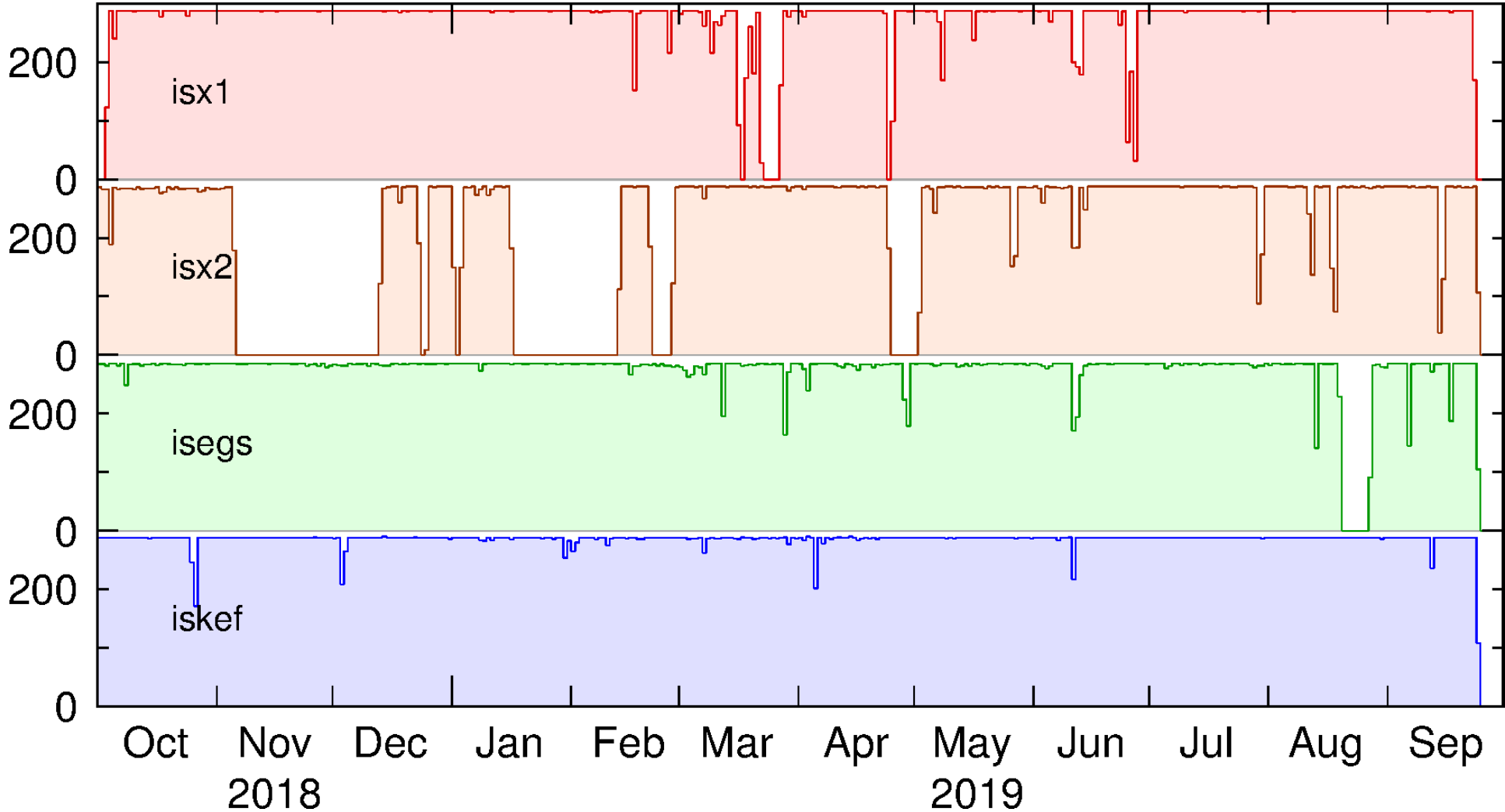
- 2019 Work on tender documents – Renewal of two radars

Plans for installations of new C-band radars

- 2019 Tender documents – Selection – Contract
- 2020 isegs renewed (E-Iceland)
- 2021 iskef renewed (SW-Iceland)
- 2021 New C-band radar (N-Iceland) ?

Radar Data Retrievals

Number of scans per day, Oct 2018 – Sept 2019



Keflavík C-band Radar - iskef

Logbook Oct 2018 – Sept 2019

- 2018-10-25 – Cache problems - local computer restarted
- 2018-12-04 – **Calibration**
- 2019-04-05 – Comms problems
- 2019-06-11 – IMO server problems

- Data retrieval in 2018: **99.5%**
- Data retrieval Jan – Aug 2019: 99.5%



Keflavík SW-Iceland Ericson C-band radar.
Photo Þórður Arason 9 August 2011

Fljótsdalsheiði C-band Radar - ísegs

Logbook Oct 2018 – Sept 2019

- 2019-03-12 – Computer problems
- 2019-04-03 – Comms problems
- 2019-06-12 – **Calibration**
- 2019-08-13 – Power failure
- 2019-08-19 – Server rack fan fault

- Data retrieval in 2018: **95.5%**
- Data retrieval Jan – Aug 2019: 94.3%



Fljótsdalsheiði E-Iceland EEC C-band radar.
Photo Hermann Arngrímsson 8 July 2016

Mobile X-band Radar - isx1

Logbook Oct 2018 – Sept 2019

- 2018-10-01 – In Reykjavík for **calibration**
- 2018-10-03 – Moved to Klaustur, pulse retrieval
- 2019-02-17 – Power problems
- 2019-02-26 – Power outage
- 2019-03-16 – Rainbow server down
- 2019-03-26 – GDRX Clock problems
- 2019-04-24 – Rainbow server down
- 2019-05-10 – Clock on GDRX set to NTP
- 2019-06-11 – IMO server problems
- 2019-06-25 – Rainbow server down
- 2019-09-23 – Moved to Reykjavík for **calibration**

- Data retrieval in 2018: **94%**
- Data retrieval Jan – Aug 2019: 94%



Mobile X-band radar isx1, Selex Meteor 50DX, installed with clear view over Bárðarbunga before the 2014-2015 volcanic eruption. Photo Þorgils Ingvarsson 22 August 2014

Mobile X-band Radar - isx2

Logbook Oct 2018 – Sept 2019

- 2018-10-01 – In operation at Gunnarsholt (S-Iceland)
- 2018-11-05 – Moved to Reykjavík
- 2018-11-28 – **Calibration**
- 2018-12-13 – Moved to Gunnarsholt
- 2018-12-25 – Computer failure
- 2019-01-16 – Computer failure
- 2019-01-31 – Moved to Reykjavík
- 2019-02-13 – Moved to Gunnarsholt
- 2019-02-21 – Bios reboot failure
- 2019-04-24 – Rainbow server down
- 2019-06-03 – Rainbow server down
- 2019-06-11 – IMO server problems
- 2019-07-29 – Rainbow server down
- 2019-09-25 – In operation at Gunnarsholt



Specially adapted truck to take mobile radar off road.
Photo Hermann Arngrímsson 20 October 2016.

- Data retrieval in 2018: **69%**
- Data retrieval Jan – Aug 2019: 80%

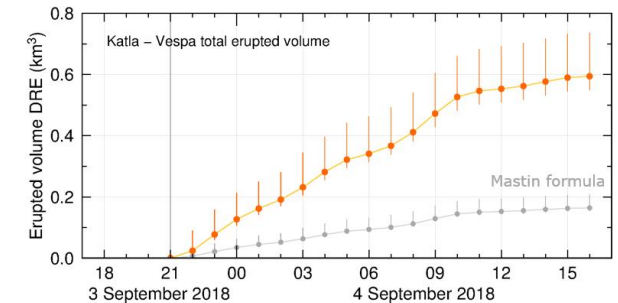
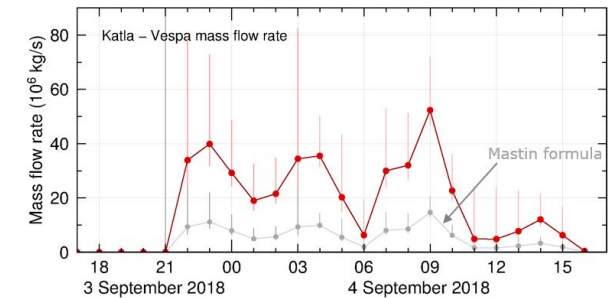
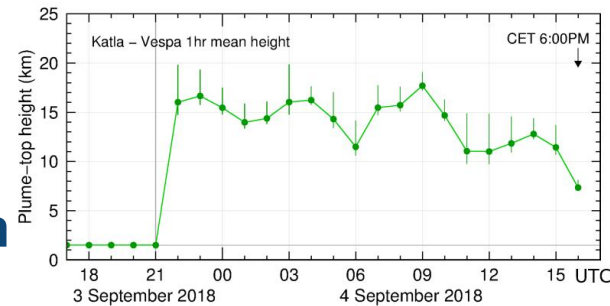
Radar Volcano Monitoring

Volcanic Eruptive Source Parameter Assessment

The **Vespa**-system is now operational and waiting for the next eruption. Data will be published in real-time at <http://brunnur.vedur.is/radar/vespa>

- Weather radars used to estimate plume height over volcano
- Volcanic source parameters estimated by a numerical volcanic plume model and ECMWF model
- Ash dispersal model using NWP model

Exercise using Vespa: Katla eruption



New radars: What is essential? – Common pitfalls?

- We are working on (finalizing) tender documents for new radars
- Hopeful for bids from (Saab) - Vaisala - EEC - Baron - Selex

- Software for standard products
- Software for R&D