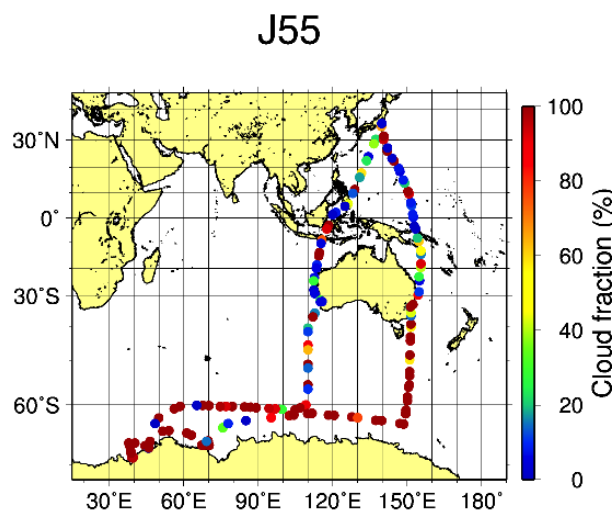


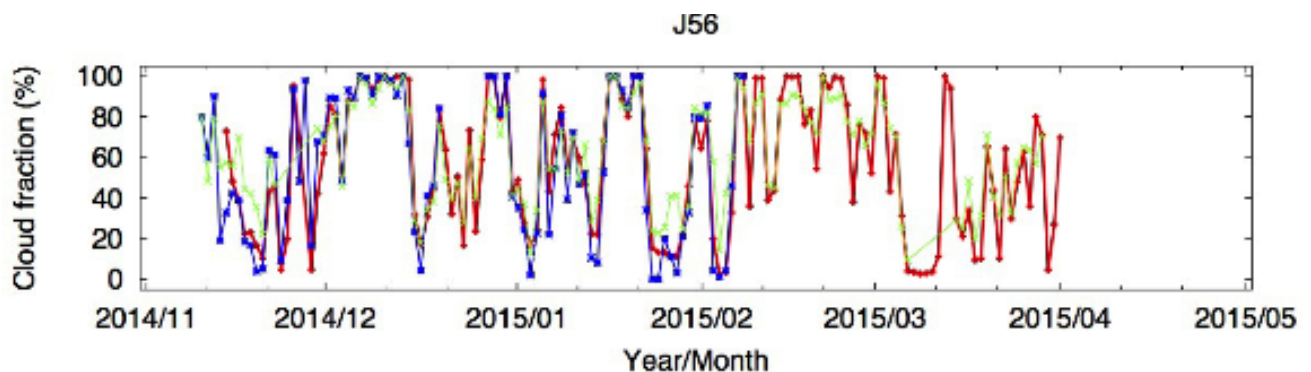
Kuji, M., A. Murasaki, M. Hori, and M. Shiobara, 2018: Cloud fractions estimated from shipboard whole-sky camera and ceilometer observations between East Asia and Antarctica. *J. Meteor. Soc. Japan*, **96**, 201-214.

<http://doi.org/10.2151/jmsj.2018-025>



← Figure 1. Cloud fractions estimated from the whole-sky camera every 6 h along the ship track of Japanese Antarctic Research Expeditions (JARE) 55 from November 2013 to April 2014.

↓ Figure 2. Temporal variation of daily-averaged cloud fractions during JARE 56. Red, blue, and green plots correspond to the whole-sky camera, the ceilometer, and visual observations, respectively. The sea ice region was from 15 Dec. 2014 to 17 Feb. 2015.



- Cloud fractions were observed during research cruises onboard the research vessel (R/V) Shirase between Japan and Antarctica using a whole-sky camera and a ceilometer. The cruises, Japanese Antarctic Research Expeditions (JARE) 55 and 56, took place from November 2013 to April 2014 and November 2014 to April 2015, respectively (Figs. 1 and 2).
- According to the comparison of daily-averaged cloud fractions from the whole-sky camera with the ceilometer observations over the open ocean between Japan and Antarctica, the correlation coefficients were 0.87 and 0.93 for JARE 55 and 56, respectively. Overall, the results from both observation methods were consistent over the open ocean.
- Furthermore, the daily-averaged cloud fractions estimated from the whole-sky camera were also consistent with the ceilometer observations over the sea ice regions where the correlation coefficients were 0.93 and 0.96 for JARE 55 and 56, respectively.