

RVOC ANNUAL MEETING
U. S. Coast Guard Agency Report
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**Status of the USCG Polar Icebreaker
Fleet**

From: Jon Berkson

The Coast Guard polar icebreaker fleet consists of three polar icebreakers. Two Polar-class icebreakers, the POLAR SEA and POLAR STAR, which were both commissioned in the 1970's, have provided the annual heavy icebreaking services needed to break open a channel into McMurdo Station. In addition, in past years, they have supported science missions in both polar regions. HEALY, which was commissioned in 2000, is primarily assigned to support science in the Arctic. HEALY's operating time since commissioning has been dedicated to supporting Arctic research, except once – in early 2003 – when it was sent to assist POLAR SEA with the McMurdo break-in.

HEALY

During 2008 HEALY completed science work in the Western Arctic, including three missions in the Bering Sea in support of the Bering Sea Ecosystem Study (BEST) funded by NSF and the North Pacific Research Board (NPRB). Then HEALY completed three missions in the Arctic Ocean including an ONR-funded project to deploy hydrographic and acoustic moorings and two missions to map the Extended Continental Shelf (ECS). One of the ECS missions was a bathymetric survey of the US ECS and the other a joint Canadian-US bathymetric and seismic reflection survey in collaboration with the Canadian Coast Guard icebreaker LOUIS ST-LAURENT.

During March 2009, HEALY departed Seattle with plans to conduct two missions for the NSF-NPRB BEST project and then two missions for ONR. The first ONR mission is to support a study of underwater electromagnetic signatures and second is to deploy acoustic and oceanographic moorings. The final mission will be a continuation of last year's joint US-Canada ECS mapping in collaboration with LOUIS ST-LAURENT.

POLAR SEA: During March 2008, POLAR SEA conducted Coast Guard missions; completed a survey of ice seals for NOAA; tested an air-sea heat flux sensor for NOAA and ONR; supported ISAR radiometer measurements for NASA; and made continuous measurements of meteorological variables as well as ocean temperature, salinity, and chlorophyll for NOAA.

POLAR SEA was the standby vessel for Operation Deep Freeze 2009. POLAR SEA is scheduled to conduct a fall 2009 deployment to perform a methane hydrate survey for ONR and a polar-bear study for NSF.

POLAR STAR remains in caretaker status.
Coast Guard received FY09 appropriation
of \$30 M to begin reactivation of POLAR
STAR.