

Septembers
2006-2015

red lines=
Polar Class 6
(e.g. commercial
icebreaking ships)

blue lines=
common open-
water ships



Septembers
2040-2059

red lines=
Polar Class 6
(e.g. commercial
icebreaking ships)

blue lines=
common open-
water ships

“New Trans-Arctic
shipping routes
navigable by
midcentury”, L.C.
Smith and S.R.
Stephenson, PNAS,
2013)

