SEA ICE

BRASH ICE

Brash is common between colliding floes or in regions where pressure ridges have collapsed.

BACK

SEA ICE

BRASH ICE

This image shows brash ice refreezing.

BACK

SEA ICE

BRASH ICE

BACK

SEA ICE

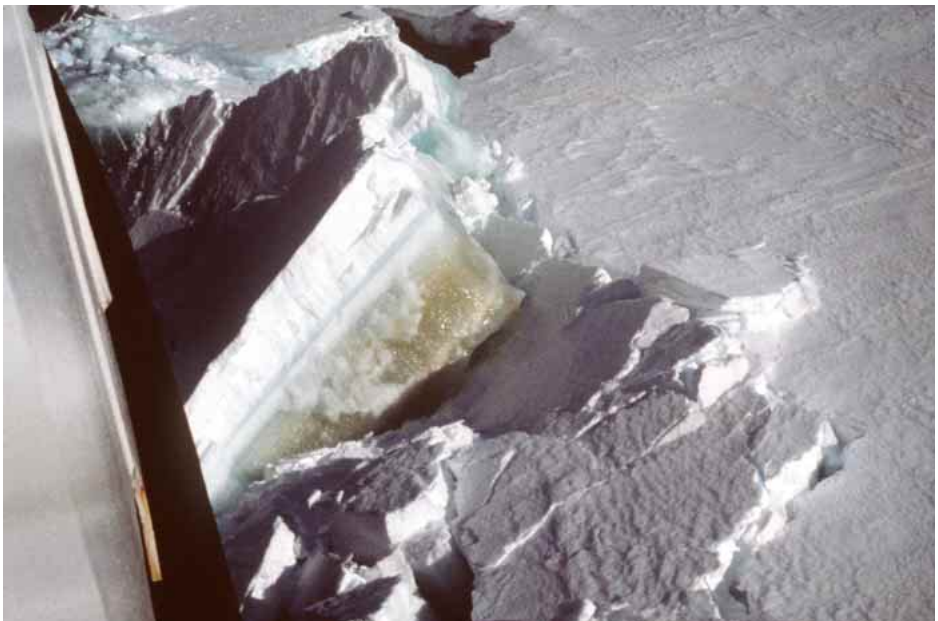
BROWN ICE

Brown ice floes in summer pack ice

BACK

SEA ICE

BROWN ICE



Brown ice visible in a floe turning sideways near the side of the ship

BACK

SEA ICE

FAST ICE

Sea ice which forms and remains fast along the coast, where it is attached to the shore, to an ice wall, to an ice front, between shoals or grounded icebergs.

BACK

SEA ICE

FAST ICE

Unloading ship on to fast ice

BACK

SEA ICE

FAST ICE

An aerial photograph (from approx. 5000ft) showing fast ice pinned by grounded icebergs

BACK

SEA ICE
FIRST-YEAR ICE

First-year ice floes with icebergs in background

BACK

SEA ICE
FIRST-YEAR ICE

Extensive first-year ice with snow dunes

BACK

SEA ICE
FIRST-YEAR ICE

Summer pack ice conditions in the eastern Weddell Sea

BACK

SEA ICE
FIRST-YEAR ICE

Highly deformed first-year ice

BACK

SEA ICE

FLOE

Small first-year floes

BACK

SEA ICE

FLOE

An aerial photograph of ship moving through pack ice broken into quite uniform recti-linear floes.

BACK

SEA ICE
FLOODING

Flooding of the ice surface may occur in summer due to intense incoming radiation, particularly if the ice is snow free.

BACK

SEA ICE
FRACTURE

Fractures and leads facilitate high heat transport between the ocean and atmosphere. Water vapour (sea smoke) can often be seen rising from the open water.

BACK

SEA ICE
FRACTURE

Deep within the pack leads provide vital access to the ocean for seals and penguins and breathing holes for whales. Minke whales take turns to breath through this lead.

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SEA ICE
FRACTURE

Fractures, by definition, are narrower than leads and do not aid the navigation of surface vessels.

BACK

SEA ICE

FRAZIL ICE

Frazil ice near the ice edge

BACK

SEA ICE

GREASE ICE

Grease ice forming near the ice edge

BACK

SEA ICE

GREASE ICE

Grease ice forming under turbulent conditions

BACK

SEA ICE

GREASE ICE

Grease ice reflects little light, giving the surface a matt appearance.

BACK

SEA ICE
GREY-WHITE ICE

BACK

SEA ICE

GREY-WHITE ICE

Thin grey-white ice showing the effects of ridging and rafting.

BACK

SEA ICE
HUMMOCK

Hummocked first-year ice

BACK

SEA ICE
HUMMOCK

BACK

LAND ICE

ICEBERG

Icebergs are not sea ice. They originate from the ice mass of the Antarctic continent that has accumulated over many thousands of years. When they melt they add fresh water to the ocean.

BACK

SEA ICE

LEAD

Leads may aid the navigation of vessels moving through the pack ice.

BACK

SEA ICE

LEAD

Refreezing lead (aerial photograph from approx. 5000 ft)

BACK

SEA ICE

LEAD

Flaw lead with cover of new ice (aerial photograph from approx. 5000 ft)

BACK

SEA ICE
MULTI-YEAR ICE

Thick multi-year ice in the Antarctic pack ice

BACK

SEA ICE
MULTI-YEAR ICE

BACK

SEA ICE

NILAS

Sheets of rafted nilas

BACK

SEA ICE

NILAS

BACK

SEA ICE

NILAS

BACK

SEA ICE

NILAS

Sampling light nilas can be difficult.

BACK

SEA ICE

PANCAKE ICE

Pancakes forming from grease ice. These are approx. 30 – 50 cm in diameter.

BACK

SEA ICE

PANCAKE ICE

Swell moving through field of pancake ice

BACK

SEA ICE

PANCAKE ICE

Large, loose pancakes up to 1.5 m diameter.

BACK

SEA ICE

PANCAKE ICE

Cemented pancakes with raised rims

BACK

SEA ICE

POLYNYA

This is a good example of a flaw polynya (or flaw lead). The pack ice has been blown away from the fast ice edge.

BACK

SEA ICE

RAFTING

Finger rafting in grey ice

BACK

SEA ICE RAFTING

Surface features caused by rafting sea ice

BACK

SEA ICE RAFTING

Finger rafting in nilas

BACK

SEA ICE
RIDGING

Ridged sea ice

BACK

SEA ICE

RIDGING

Ice being forced upward to form ridges as a result of compression of the pack. Flooding of the surface snow cover can be seen near the centre of the image.

BACK

SEA ICE
RIDGING

The RSV *Aurora Australis* stopped in heavily ridged ice

BACK

SEA ICE
RIDGING

Ridged ice typical of the central Weddell Sea

BACK

SEA ICE

SHUGA

With the interaction of surface winds and waves, shuga may line up along the wind direction and form characteristic ice bands.

BACK

SEA ICE

TIDE CRACK

Tide cracks may form in fast ice as a result of fluctuating sea level.

BACK