

### LAND ICE WATER VAPOR

# **SEA WATER**

### **SNOW**

A precipitation of ice crystals, most of which are branched.

### **FIRMED**

Old snow which has been transformed into a dense materials. It is not snow; its particles are joined. It is not ice; it has communicating air interstices.

### **ICE SHEET**

A mass of ice and snow of considerable thickness and large are on rock or floating on water. An ice sheet of greater than 50,000 square km is called an ice cap.

### **GLACIER**

A mass of snow and ice continuously moving from higher to lower ground, or if afloat, constantly spreading.

### **ICE SHELF**

A floating ice sheet of attached to a coast. The seaward side is the ice front.

#### **ICEBERG** TABULAR BERG

A large mass of floating ice A flat topped ice berg more than 5 meters above formed by breaking off sea level that has broken from an ice shelf. away from a glacier.

### **BERGY BITS**

A piece of floating ice less than 5 meters above sea level and not more than about 10 meters across.

### **GROWLER**

A piece of floating ice smaller than a bergy bit, almost awash.

### FRAZIL ICE

Fine spicules or plates of ice in suspension in water.

### **GREASED ICE**

A later stage of freezing than frazile ice; coagulated spicules and plates.

### **SHUGA**

An accumulation of spongy considerable thickness white lumps, a few centimeters across formed from slush or grease ice.

## **SLUSH**

Snow, saturated with water floating after a heavy snowfall.

#### **ICE RIND**

A brittle, shiny crust formed on a quiet surface by direct floating ice bending on freezing or from grease ice less than 5 centimeters thick.

### **NILAS**

A thin elastic crust of waves up to 10 centimeters thick.

### PANCAKE ICE

A piece of new ice approximately circular, 30 centimeters to 3 meters across, with raised rims. formed from freezing together of grease ice, slush or shuga or the break up of ice rind or nilas.

### **FAST ICE**

Sea ice which which remains fast along the coast where it is attached to the shore; an ice front, ice wall or over shoals or between grounded ice bergs.

### PACK ICE

Any area of sea ice other than fast ice no matter the form or disposition

### **FLOE**

A piece of floating ice other than fast ice or glacier ice.

### There are five sizes:

Ice Cake - less than 10 meters across Small - 10 to 100 meters across Medium - 100 to 1000 meters across

Big - 1 to 10 kilometers across Vast- Over 10 kilometers across

### **BRASH**

Accumulation of floating ice made up of fragments not more than 2 meters across. The wreckage of other forms of ice.

### SEA WATER

# POLAR ICE









Photo Credits: Beth Simmons, 2010

### Sea Ice Keeps it Cool

Saltwater freezes at about -1.8 °C (28.8°F). Most Antarctic sea occurs annually meaning it forms in the winter and melts during the summer. Sea ice regulates exchanges of heat, moisture and salinity in the polar oceans. It insulates the warm ocean water from the cold polar atmosphere except in leads. Here, the heat and water vapor from ocean exchange with the atmosphere in winter. The frequency of these leads determines where and how much heat and water are lost to the atmosphere, which affect local cloud cover and precipitation.