

Cooking up a voyage schedule



JAMES DRAGISIC

Antarctic weather and ice conditions – the ‘A’ Factor – create numerous scheduling problems for AAD logistics staff. Following is their recipe for planning Antarctic voyages.

Gather the ingredients: For high-quality research we need time to prepare and a plan (voyage schedule) to follow. Scientists’ assessment of the relative priority of research projects, and the major programs for the season, determine the timing and route of particular voyages.

Take those programs, add station resupplies as permitted by ice and weather, when the resupply activity is least likely to impact on the native environment, and you have the basic recipe for an annual voyage schedule.

Prepare mixing bowl: However we draft the schedule, ingredients must fit the budgetary mixing bowl, of which shipping costs are a major component. Select activities to match budget, rejecting activities which cannot be accommodated. The shape of the mixing bowl is also restricted by the time limits to our charter agreements and ships’ capabilities (range, speed, cargo and passenger capacity, ice capability). *Polar Bird’s* ice classification restricts its effective operation to relatively light ice conditions, while *Aurora Australis* can operate earlier when ice is more prevalent. Stagger their use so that we can extend the summer ice window to its practical margins.

Stir ingredients: Mix in the demands to deliver summer scientists to continental stations before the penguins and other wildlife arrive and bring them out after the last penguin leaves. Blend delivery of summer trades teams to support science or environmental projects. Ensure ships arrive at stations in the right order so that essential resources are

delivered where and when they are needed. Carefully add the preference to deliver wintering station personnel soon after completion of training. Add helicopters and the occasional fixed wing aircraft to taste. Minimise transit times, maximise time for marine science. Ensure that voyages use the most economical route and remember environmental implications for voyages calling at Heard or Macquarie Islands. Blend in changeovers and resupply activities to allow enough familiarisation time for incoming personnel and for safe cargo removal. At times the stirring

requires a large wooden spoon when demands exceed practical possibilities.

Place in hot oven: The secret to an acceptable schedule is to open the oven door at least twenty times, each time allowing the schedule to be revised to meet changing program needs. The variation might be by only a day or two but small changes can have dramatic impacts on other programs and as many as 40 versions of schedule drafts may be needed for consideration by interested groups, each version accompanied by an esti-

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Australian Antarctic shipping program 2002-03

The following shipping schedule for the 2002-03 season was correct as at 9 April 2002. However, published voyage timings are subject to change without notice and may be brought forward or delayed. The most current information is available on the AAD’s website at http://www.aad.gov.au/goingsouth/schedules/0203_ship_sked.asp.

- Voyage 1 [Aurora Australis: Macquarie Island deployment and Marine science](#)
Departing Hobart 13 October 2002, returning Hobart 19 November 2002
- Voyage 1.1 [Kapitan Khlebnikov: Mawson, Davis and Casey deployment](#)
Departing Cape Town 20 September 2002, returning Hobart 2 November 2002
- Voyage 2 [Aurora Australis: Davis and Mawson changeover](#)
Departing Hobart 22 November 2002, returning Hobart 31 December 2002
- Voyage 3 [Polar Bird: Casey resupply and changeover](#)
Departing Hobart 17 December 2002, returning Hobart 10 January 2003
- Voyage 4 [Aurora Australis: Marine science, Mawson retrieval](#)
Departing Hobart 3 January 2003, returning Hobart 15 March 2003
- Voyage 5 [Polar Bird: Mawson resupply, Davis retrieval](#)
Departing Hobart 13 January 2003, returning Hobart 19 February 2003
- Voyage 6 [Aurora Australis: Macquarie Island resupply](#)
Departing Hobart 17 March 2003, returning Hobart 28 March 2003
- Voyage 7 [Polar Bird: Casey retrieval](#)
Departing Hobart 20 February 2003, returning Hobart 13 March 2003

German and Australian scientists collaborate in the Prince Charles Mountains 2002-03



ROB EASTHER

Traverse vehicles south of Mawson in February 2002 depot the first of the 450 drums of fuel for the PCMEGA program.

A combined German Australian expedition will work in the rarely visited southern Prince Charles Mountains region, 500 km south of Mawson, during the austral summer of 2002-3. In the field for 10 weeks, the group of 34 comprises geophysicists, geologists, helicopter and fixed wing aircraft pilots and engineers, field guides, medical doctor, communications officer, mechanic and a field leader.

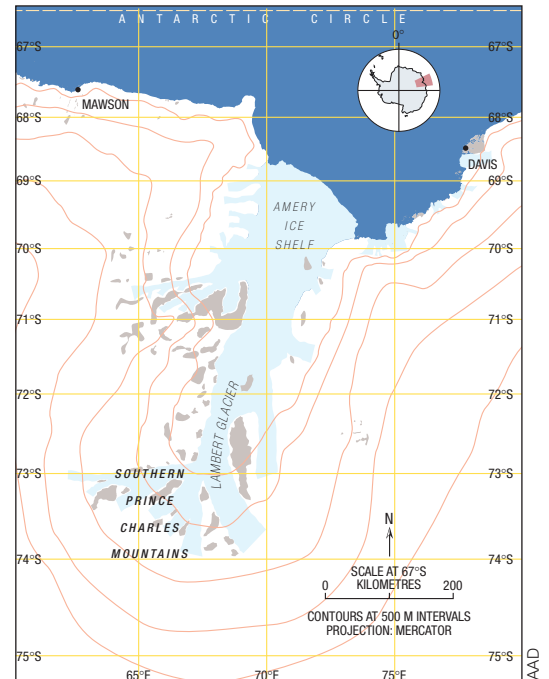
Known as the PCMEGA (Prince Charles Mountains Expedition Germany-Australia) the project's Principal Investigator is Professor Chris Wilson of Melbourne University, School of Earth Sciences. He shares the coordination of the scientific program with Dr Norbert Roland of the Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) in Hannover.

Planning for PCMEGA is being coordinated by an Operations Branch Project Team at the Australian Antarctic Division and includes specialists in safety, air, field and tractor traverse operations, environmental impact assessment, medical services and financial management and logistics. AAD operational support for the pro-

gram includes a traverse by tractors towing sleds of fuel and equipment from Mawson to Mt Cresswell, a return journey of over 1000 km, arriving to coincide with deployment of the field team in November 2002. This group of Mawson winterers will measure snow deposition on a section of the Lambert Traverse route last travelled in 1994.

The field leader will shortly be selected and the environmental impact assessment for the scientific and operational support programs finalised before the expedition departs on Voyage 2 later this year. The field parties will be deployed by Twin Otter fixed-wing aircraft and Aerospatiale AS350B (Squirrel) helicopters through Sandfjord Bay, southwest of Davis.

A major component of the program will be the conduct of an airborne geophysical survey with equipment fitted into the Twin Otter, delivered from Canada for the operation. Groups of geologists and surveyors will camp in the field using four wheel drive bikes (quads) and snowmobiles, assisted by experienced field



guides and supported by helicopters.

The Expedition will return to Australia on Voyage 5 in March 2003. Progress on planning the Expedition can be viewed at <http://www.aad.gov.au/goingsouth/expeditioner/projects/pcmega.asp>

Rob Easther, PCMEGA Program Manager, AAD

STOP PRESS: After almost five weeks away from Mawson, the six-member traverse team led by Jim Dragisic returned triumphantly to Mawson on Thursday 2 May in high spirits. They are to be congratulated on a magnificent effort, depoting fuel 300 kms south of Mawson in preparation for a second traverse in October 2002 which will deliver supplies, equipment and fuel to support the PCMEGA field season. Well done to all involved! – *Dr Tony Press, AAD Director*

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mate of charter hire, fuel, victualling, helicopter and other related costs.

Keep in refrigerator: Preparing a schedule two years in advance requires a calculated risk. Even though historical ice data is referenced in drafting schedules, it is almost inevitable that a ship will find ice conditions (like those off Casey and Davis in recent years) waiting to frustrate our efforts.

Serve with side-salad: Don't forget that ships deliver fresh fruit and vegetable sup-

plies to stations, so plan the schedule to minimise the delivery time. They have to still be fresh on arrival.

Add condiments to taste: Publication of draft schedules brings a generous sprinkling of add-on programs to support. Proponents of those programs are happy to accept that they will only be supported if an opportunity presents itself during the voyage, but they still require preparation and planning if the most of those opportunities are to be made. Proponents never lose expectation that they

will get the support they need. Select and brief voyage leaders on the range of programs they need to support, share the frustrations of those waiting at a station for the ship to battle its way through the ice to retrieve them, placate those waiting at home, listen to the plaintive and often complaining messages left on the shipping message service (1800 030 744). Be prepared to cut the cake into smaller slices when ice or weather causes delays that can't be made up.

Geoff Dannock, Logistics Manager, AAD