AGIP KCO

FEBRUARY 2006

MONTHLY BULLETIN

SPECIAL ICE EDITION

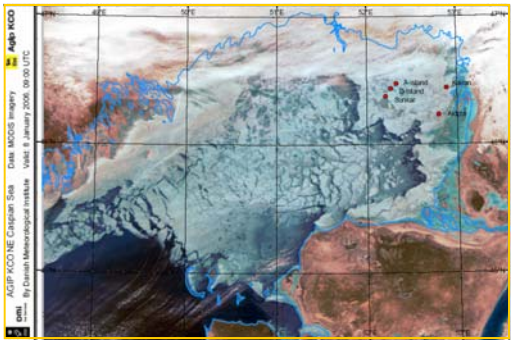
About the Bulletin:

Issued on the first Monday of every month, the News Bulletin gives an overview of Company progress & activities of the previous month.

ICE SEASON UPDATE

The ice season in the Caspian started later than usual. First ice in Kashagan East appeared on December 27 2005, covering most of the area within 48 hours. Weather has been unusually cold in January 2006, resulting in a generally thick ice cover, with ice thickness varying between 15 and 45 cm according to the ice reports.

D Island prepared itself for the ice season, using Rock Barriers surrounding the island, which have a dual function for Wave Action through the non Ice Periods and as Ice barriers for the Winter season. These barriers protect D Island from the worst of the ice build up. The Barriers work by breaking large quantities of drifting sheet ice into rubble, which keeps the complex clear from significant Ice forces. The rubble ice has been forecasted to stretch from the North/South Cofferdam right round to the West and East Barriers, this build up acts as shield and will actually protect the Drilling Island and Riser Island from drifting sheet ice. As the North Barriers were not complete in the 2005 season extra rock has been placed at the North/South Cofferdam to ensure this is protected through an Ice event. The protection that the ice barriers provide enables work to keep progressing through out the winter. More work on ice barriers and their role in protecting the D– Island complex will take place throughout 2006 and 2007, with the placement of additional rock and the analysis of their effectiveness from this ice season.



From left: Aerial view of D Island and satellite image of ice coverage in the Caspian.

Inside the barriers, Tulpar, the icebreaking escape supply boat, has been breaking the ice to keep the escape routes open.

Alan Macfarlane, Electrical Support Engineer for the D Island, has written an article on his impressions of this amazing ice-breaking boat. We have turned this bulletin into an "Ice Special" to be able to cover Alan's article in full. Ice Management fascinates most people, and Alan's enthusiastic report gives a great sense of the action and of what the Tulpar is able to do.

Read the full article, "**The Biggest Ice Cube Maker in the Caspian Sea**", at the back of this Bulletin, or, as many of Alan's colleagues call it: "**The Great Tulpar Story**"

AWARDS CEREMONY FOR ISO 9001:2000 CERTIFICATION

On January 20, Agip KCO held an awards ceremony for Kazakhstani companies who have successfully completed the ISO 9001/2000 Quality Management training. The training is part of a series of initiatives from Agip KCO to support development of Kazakhstani businesses and to maximize the involvement of local content. The ISO 9001/2000 Quality Management certification enables the companies awarded to deploy the international standards recognised and operated by Agip KCO and its suppliers. In addition, it enables them to provide their expertise and services outside of Kazakhstan.

Right: Mr. Ospanov presenting an award.

INSIDE THIS ISSUE:

INTERNALCOMMUNICATIONS TEAM@AGIPKCO.COM

January Highlights

Geomatics ISO 9000 Certification

The Geomatics department, part of District Geosciences, started a pilot of the Quality Management System (QMS) implementation program in January 2006.
A gap analysis has been done to identify any potential short comings in the planned QMS implementation, and all Geomatics documents including; standard operating procedures, work instructions, check lists and formal guidelines are being updated where required. The objective of these audits is to achieve certification for successfully implementing the QMS and ISO 9000:2000 into the Geometrics department and therefore constantly improving quality control.
An awareness workshop for all Geomatics personnel is scheduled for mid February, followed by a formal audit by Den Norske Veritas (DNV) on April 3. Following these events, a management review and any corrective action(s) needed for the QMS will be carried out.
Additionally, in January of this year, one of the Geomatics team successfully passed the Lloyds Register Lead Auditor program held at Agip KCO's training facility in Atyrau.

Samal Accommodation Camp

Since December 16, staff working on the Onshore Processing Facilities Plant, have been taking up occupation of the Samal Accommodation Camp. To date the amount of people living at Samal is 118, this figure comprises 50 Agip KCO staff, 40 Petroleum Facilities E&C (PFEC) employees, and 28 ESS employees (maintenance, cleaning & accommodation assistance). Population of Samal will increase with more Agip KCO and PFEC employees moving in over the next few months. The camp can accommodate up to 360 people and facilities include; an indoor sports centre , an outside sports grounds, a clinic, a laundry, a canteen with 500 seats, and an entertainment centre.

SAP Update

SAP, the new ERP system the Company chose to manage its growing business requirements, in line with the Oil & Gas best practices, is moving towards the implementation and deployment phase. During the design phase, a detailed analysis of the user requirements was performed with extensive involvement of Agip KCO personnel, who provided a guide for the implementation and development of the new ERP system, as well as identified key design features. The Design Report, which describes the system solution to be implemented, is being agreed with the involved Agip KCO Process Owners and shall be shortly signed-off for their final approval.
The implementation phase will be carried out by the SAP ICT Team in all Agip KCO locations, from the system configuration to the user acceptance test, with the support of the SAP Change Management Team.

S.A.F.E in Malta

The Experimental Programme initiative, S.A.F.E (Shaping Accident Free Environments) continues to be rolled out. On January 3rd & 4th, workshops were held in Malta for the Power Generation Barge Construction Management Team. Taking part in this event were Agip KCO personnel, ABB, MSL and Rolls Royce contractors. With a total of 23 participants, the workshop had full attendance. Feedback indicated the S.A.F.E programme is an effective and fun initiative, with commitment from all the attendees.

Contractors Safety Awards– Bautino

On January 20, Agip KCO nominated and awarded some Contractor employees as part of the HSE recommendation scheme in Bautino. Awards are presented to nominees who have excelled in their HSE performance, which is part of a safety incentive scheme for the Contractors involved in Bautino Construction activities.
On a monthly basis a Contractor company nominates two of its employees who have excelled in safety performance. Subject to the general HSE performance of the Contractor, the nominees will be awarded a small gift by an Agip KCO representative in a bi-weekly meeting with Contractors. The main idea of the incentive is to highlight Contractors safe performance.

Above from left to right: S.A.F.E. in Malta and Contractor Employees receive safety award in Bautino.

Sharing Cultures: Italian Classes in Atyrau

As a multinational company, Agip KCO presents it's employees with the opportunity to experience the diversity within it, also by learning the different languages that are spoken. These opportunities can contribute to successful inter-cultural understanding. In Atyrau, Company employees can attend Italian classes 'La Scuola di Italiano', given voluntarily by Giancarlo Diciaula, Testing and Completion Engineer from Well Operations Department. These classes are free and are given after work at two locations: advanced level - in Chagala Centre and beginner level – at Saipem's office.

Giancarlo has been teaching Italian in Atyrau since January 2005. However, his teaching career began almost four years ago, when he worked for Karachaganak Petroleum Operating (KPO) in Aksai. Giancarlos's free language school has become well-known in Atyrau. At the moment there are 30 students attending classes, not only from Agip KCO employees, but also from other companies, such as Saipem, KCA Deutag, YKK, Panalpina and Parsons.

The students are taught with the support of up-to-date and carefully selected materials, in order to give the participants valuable information on modern-day Italian culture and society. The students develop their language and communications skills in tandem. Giancarlo's method is based on mastering grammar and conversation at all levels, using both Italian and English languages. As one of the school attendees commented: "Giancarlo recognizes students' strengths and weaknesses and guides the lessons around them. He encourages us to take an active role in the lessons without fear of failure."

Thanks to the activities by the Italian Embassy in Kazakhstan, a number of Italian language training courses have been organized in Astana, Almaty, Aksai, Atyrau and Karaganda, with annual scholarships provided for study in Italy. The Embassy also supports the activities of various Italian language teaching centres in Kazakhstan, one such being the 'Aksaicultura Association' in Aksai, which supports the Atyrau school with the provision of books and CDs.

Above: Giancarlo & students Anargul Baimenova, Alima Turusheva, Assel Aitmagambetova, Zhannat Sagidullina & Anara Kaliyeva

Intensive interpreting Course

Five selected Agip KCO interpreters from the District recently attended a simultaneous translation course at Heriot-Watt University in the UK, in order to improve their simultaneous translation skills. Agip KCO has very good facilities in Atyrau for simultaneous translation, however, not every translator is able to provide these services, due to the special skills it requires. The course helped to significantly improve the level of both consecutive and simultaneous translation skills of the students. James Halliday, the tutor of the course said, "... these were ideal students, as they have a strong language base but there is plenty for them to learn. It was a delight to work with them as they were all keen to develop their skills and took part enthusiastically in the course".
The students have now returned to Company offices and are putting their newly acquired skills into practice.

Above: Students with their course certificates

Robert Burns Night Celebrations

The 3rd Annual Atyrau Burns Supper Dance was held on January 28. This is an evening of traditional Scottish entertainment, with the musicians and dancer at the event flown in from Scotland. Attendees enjoyed a traditional Scottish four course dinner, with poetry readings of Robert Burns' famous works. Agip KCO is one of the main sponsors of this popular event. All the proceeds raised by the dance will go to a local charity.

Agip KCO Meetings and Events In January

10 Jan	FFD Compressor Driver Selection—Peer Review	London
11 Jan	OpCom	The Hague
12 Jan	IRSC 5	The Hague
17 Jan	DCSG	The Hague
18 Jan	STSG/DCSG Joint	The Hague
20 Jan	IRTF Drilling/Subsurface Concepts	The Hague
23/27 Jan	O & M Validation Review	London
25 Jan	FinCom	The Hague
25/26 Jan	STSG	The Hague
26 Jan	ProCom 13	London

ICE SPECIAL

The Biggest Ice Cube Maker in the Caspian Sea

Ice cubes? Now don't think I have drink on my mind. No, this is about an icebreaking escape supply boat. The Tulpar is some piece of kit. I was bowled over by her as she came into the Rock Pile a couple of months ago. Her purpose is to evacuate 330 workers from D Island, also known as The Rock Pile, if there is the need. The requirements of when this is to be done is complex and not for this time. I have always been interested in engineering items that are designed and built to do work. Boats, for me are tugs, dredgers, fishing boats and offshore supply boats, more often-called anchor crankers. Cranes are the things I look at and my railways are steam. A highly polished car or boat is looked at once and then I move on. So when the shape and the purpose of the Tulpar was explained, my interest was raised.

I have had a dream of taking the first ship of the season into Churchill in Hudson Bay, Canada. I don't know why but I have. A ship designed for a particular job and doing it well is like a well-tuned piano or a Stradivarius violin to me. I'm different and want to remain this way. The ice round The Rock Pile came late this year. Since it came, the Tulpar has been in and around the island, keeping the escape ways open. D Island is surrounded by ice protection barriers. Inside the protection, ice forms just like it does outside. Outside the barriers, the ice can move with the wind but inside it is severely restricted. To keep this ice moving it is simply broken up and by churning it in the right place the wind moves it away.

One day the Offshore Installation Manager told me how impressed he was at what the Tulpar was to do and was required to achieve. His descriptions just strengthened my interest and will to experience it for myself. Not being one to be shy I asked if there was an opportunity to be.. go.. do.. I was available… The Scots' saying of "Shy bairns get nowt!" is used often and as long as you accept no, you have lost nothing and gained immensely. I thought little of it for days, but still watched her as she spun, twisted, chewed ice, swirled ice cubes and generally churned the inner lagoon of the Rock Pile into a conglomeration of slush, broken ice and tumbled jumbled flat slabs.

The Tulpar churns up the ice on a near daily basis. A simple job you may think. But nothing on this project is easy. Looking at her general arrangement I could see that she had 4 electrically driven azimuth thrusters. With these being fully controllable she can pirouette, move sideways and turn on a sixpence as the old saying goes. I have watched and heard her grind ice to cubes. I also have felt her move the ice around the accommodation barge we live in as she moves round the inner area of the Rock Pile. I still dreamed.

One afternoon as I walked from another meeting, the D Islands Ice Advisor, our own Rock Pile Iceman as he is naturally called, was waiting to see the Offshore Installation Manager with a request to go and make more ice cubes. It was not exactly put that way but the overall effect is the same. It was a request to clear and move ice from the lagoon to the shipping channel in hope that the wind would take some of the ice away. The trip was to be an hour or so, till dark. "It's your opportunity Alan! Want to go?" How long do you think I took to decide? Yes you're right! Much shorter than the time you took to read the question.

ICE SPECIAL

The Iceman had been on board several times before, so once on the deck it was a straight route to the bridge. My eyes must have looked as if they had popped. This was a ballroom, a dance floor for 50, and a 20-piece band on one of the bridge wings… A visual sweep of the layout found several well-developed standards I recognized.

The big low bridge had two main desks with subsidiary ones on the bridge wings. The bridge wing ones were not fully equipped, but had full propulsion and power plant indication. The two desks were similar but with obvious differences due to the way they were expected to be operated. Electronics glowed, as the desk was selected and transfer acknowledged. The indicators started to react to the movement of the four quite small handles. We moved away from lying alongside the accommodation barge as if brushed by a feather. Indicators moved, both direction and shaft speed were displayed in various forms on the console and deck head. I watched speed and direction on one set, the second showed requested power and actual motor output both graphically and digitally as percentage of maximum. Thruster direction was naturally shown. Next to the electronic display was the ship movement indication, it showed quite a complex set of information. The ship's heading was a given but relative movement round the ship's center was startling to watch. The GPS on this console showed direction and speed, but not track or position. Actual position is more navigational information, this was left to the main forward console. With so much graphical information it was plain that the skipper has all the information to attack the ice.

The dim lighting on the bridge was normal, the light outside was fading and we were to go and make some ice cubes. Was my smile obvious? I suppose so. I watched the controls, the indicators, the power and the manipulation of the thrusters. With two of the main engines generating the power the skipper had all he needed. We moved round the second accommodation barge and headed out to the North Channel. We did not move directly, we tended to twist and turn in order to make more ice cubes. The aft thrusters would indicate 1200 RPM in clean water. I assume this is motor speed as a thrusters of this diameter running at that speed is frightening. As we dug into sheet ice or into the larger formations, the indicated speed would fall to 750 / 800 RPM. At the same time the power indication reacted by showing an increase in load and a decrease in available power. Seeing two meters going the opposite way at the same instant, is somewhat perturbing, and with the meters going from 500kW to 4000kW in seconds they showed the engines reaction to conditions was instant.. This made me want to go and watch the behaviour of the generation plant, see the drives reaction to chewing ice and, oh I just wanted to crawl all over the power and control system to feel the control and brute power she was throwing at the ice.

As we started to enlarge the channel out to the shipping channel, you could feel each blade as it made contact with the blocks of concrete masquerading as ice. Ice to any one on the beach is soft and easy to break. Well this stuff is not. If it is solid and measures 40cm,- about 16" - then is not broken like ..a carrot? A carrot the size of a oak tree ….then you may understand the forces…… maybe!!!

With the bridge being double-glazed and well insulated the sounds you hear outside were not transmitted inside. The vibrations though, were felt through the entire ship, the big fixed blades of the thrusters hitting solid ice could not do anything but make her shudder. The unstoppable force and the immovable object… something must give . I wonder what the thruster blades are like after a season attacking the friendly, amenable, sheets of iron ice produced by the forces of nature.

ICE SPECIAL

The snow piles on the deck winches was stark in the glare from the bank of floodlights above the bridge windows. The new snow was blown across the deck like sand in the desert, forming drifts and patterns round any obstacle or fixture on the deck. In the time we were out this deck snow just got worse to be in, but better to look at. The shapes the wind and snow make are smooth and curved. With the ship moving, the wind would pile up snow in one place, only to grab it and throw it into the other corner as the thrusters drove the stern round, and the deck was hit by the wind and new snow from another direction. Just watching the snow was strangely soothing and hypnotic.

Looking down on the ice, which was being attacked, showed the pattern of snow behind every small irregularity. Drifts were built up round anything more than the size of a brick. Wind blown snow clung low to the surface and appeared to skip, laugh and swirl round anything in its way. It looked like smoke being blown across the sky.

Still biting the ice, the engines were now getting up to and into their stride; their water was heating up, power limits of being cold had long been forgotten. They were now giving their all. Watching the indicator on the deck head, it continually flashed red; 90% demand. For periods it seemed that both were stuck "In the Red". She was giving the ice no choice…. "*I am supplying it all"*. The skipper just took the auto system as another working tool. Trusted them and used the systems to the full. The movement of the four thruster controls was like a minstrel playing a musical instrument or a puppeteer making the puppet dance in time to the tune. The ice was calling the tune round the Rock Pile this day, the Tulpar was the puppet and the skipper the man with the dancing hands. To many it would be nothing, to me it was a man in tune with the machine. Capabilities and requirements were mixed with his knowledge of her, and the reaction of ice relative to her. All the available abilities were amalgamated into a working entity, brain and brute combining to be the biggest ice cube maker in the Caspian Sea. The skipper was asked to do things by the Ice Man and would attempt to carry it out. At times these requests were questioned, discussed and an approved plan formulated taking into account the capabilities of the Tulpar and the situation .

All too soon the light was gone and the Morse lamps were focusing on ice edges and the way home to the quay. We ploughed, churned, crunched more ice as we came back into the basin and our berth. On the way back in, the supply ice breaker Kapitain Mietsayk departed for A Island and, as she passed us, the snow flakes were buffeted into twisting orange streaks in the pool of light between the two ice fighting ships. As we made progress through the slush ice a new alarm was sounding. Looking round I could not identify the panel giving the alarm, until the smile on the skipper's face turned to a grin and he just said "Coffee machine…… Coffee is ready". Damn electronic coffee machines! The taste of the coffee was enough to overcome the mild embarrassment. The cup could be put on the window ledge with ease, leaving the camera there was also easy. It felt easy and right.

It was nearly over or so I thought. Just in and tie up! Nothing on this project is that easy or simple. Nothing. As we came in we used the stern thrusters to wash the quay. Brush the slush ice away. Well that was the idea… it only made the ice into smaller chunks. When you hit ice it breaks up and dissolves right? On the path in the garden, yes, but this is sea ice being minced by a 1.7m diameter propeller. The thick slush ice layer just forms a raft and fills all the open area as soon as you leave it.

ICE SPECIAL

We brushed it away, it came back, we thrusted it into whirlpools; it laughed and ran round the whirlpool and came back. We moved in and placed the stern on the quay nice and easy. This left a 3mt. gap between the bow and the quay and was filled with soft fresh new slush. As I watched, the bow thrusters' power I noticed it had climbed from a nice even 50% and it was now sitting at 100%; this should have driven the bow so hard onto the quay that the tier fenders would be flat! Not now, this IS ice season. We were not moving….. not an inch, sorry a centimetre. It was like a sponge, a springy new sponge, which you cannot compress. This ice was the same. It's small ice cubes floating in water easy to move and swish round - no, nyet, and all the other no's in the languages of the world.

After another try we came in parallel to the quay from out by the accommodation barge. Leaving only a very small gap between Tulpar and the quay, it did not give the ice a space to form. The skipper being on the center line of the ship couldn't see the bow or how close he was to the quay. Seeing how close he was to the quay is normally not an issue; as the normal way to moor is to approach and tie up, not run along only centimetres away from it, for the ship's full length or more. At this attempt the mate took station on the bridge wing and constantly called out the distances. Power was raised and lowered, the four thrusters danced and the generators see-sawed. Gently, centimetre by inch the big boat moved gingerly along the quay. If the gap between the bow or stern opened up too much, the slush ice was ready to pounce. It would fill the gap and it would stay and just be there. Exactly where we didn't want it to be.

With the dexterity of a juggler, the skipper juggled power and speed. The thrusters pushed, drove, swirled ice and washed, the engines responded to the juggler. We came along the quay, finally getting to the point where we were supposed to be. Ropes were put ashore and they were used to bring her tight to the sheet piles that form the quay on the Rock Pile. All the ropes on the Tulpar are brought back to the ship like a big loop. This is so they can be cast off from the ship without assistance from the Rock Pile, another little part of escape planning. For now we were home, berthed and tied up. The thrusters were set in their home positions and the system disconnected from the power. This is the nearest you get on a diesel electric bridge control ship to FWE. What is FWE you question? It is another TLA which the Oilfield love, that is Three Letter Abbreviation to the non Oilfield people. Now FWE is the first position astern of STOP on the old style ship's engine room telegraph. It is known to ships engineers by the initials FWE, this is the last ring rung down from the bridge to the engine room. This indicated that the marine department had Finished (playing) With Engines. We had FWT, Finished With Thrusters on a cold and windy evening in January 2006. The ship now was settling down for the evening.

The Iceman and I went from the bridge down to the main deck and assisted in putting up the gangway. Now, with the gangway up on the Rock Pile we climbed home, up onto the Rock Pile. I looked back and saw a machine in a totally different light. The ice was something else, I wanted more. The slush ice was now a conglomeration, a solid mass of ice cubes. The ice cubes were now the size ready for my whiskey glass. I'll now always smile as I drop ice into my drink. Barmaids will wonder why I smile when they ask "Do I want ice?", they would not understand, even some on the Rock Pile would find it difficult to see the beauty in the Ice Cube Maker. I see her masculine beauty and, I'll remember the experience. I do look forward to another trip some time, I do hope it is soon.

Alan Macfarlane 29-1-2006