

HULL 045



HULL 050



HULL 060



HULL 061



# MILITARY dossier



Think **MILITARY**... Think Incat





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## THE HISTORY

Incat craft have been utilised in a range of military applications, and the commercial off the shelf technology is providing economic, efficient and effective commercial platforms that interest defence forces which understand the need for new ways to achieve results.

The Incat platform offers fast transit, fast turnaround in port, and the shallow draft and optional ramp arrangements can significantly increase access to austere ports. Flexibility and versatility in vehicle deck layout, plus optional helicopter decks and hangars increase mission options. The wide beam and other design aspects improve passenger comfort and crew accommodation, medical and other facilities can be installed for specific requirements. Minimal crewing numbers and reliable economic operation assist with ongoing budget considerations.

Traditionally, world militaries have relied mostly on airlift and sealift to deploy troops and equipment. Ocean travel has meant slow, deep-draft vessels. In this age of terrorism, armies need to get troops and equipment into the fight quicker while navies look for a platform to conduct a variety of sea-based operations.

In 1999 the Royal Australian Navy chartered an Incat 86 metre vessel for use during the East Timor crisis. As HMAS *Jervis Bay* she completed over 100 trips between Darwin and Dili, transporting personnel and equipment as part of the United Nations Transitional Administration in East Timor (UNTAET). With average speeds of 40 knots, the craft completed the 900 nautical mile return trip from Darwin to East Timor in less than 24 hours.

During this time the vessel seized the attention of the US military, enabling them to witness the potential of high speed craft to perform various military roles. As a result, in 2001 joint forces from the US military awarded Bollinger / Incat USA the charter contract of Incat 96 metre HSV X1 *Joint Venture*.

The success of *Joint Venture* led to more charter contracts. The 98m TSV-1X *Spearhead* was delivered to the US Army in September 2002, and HSV 2 *Swift* to the US Navy in August 2003.

All three vessels have displayed their excellence in humanitarian roles, including *Swift's* major role in the Hurricane Katrina relief program, often responding on short notice to meet the needs of disaster relief efforts. The ships became the military benchmarks for future fast sealift acquisitions due to the high operational speed, long range deployment capabilities, combined with a high deadweight capacity.

This military dossier chronicles the history of the four vessels mentioned above. For the latest Incat military vessel concepts contact head office or your local Incat representative.





## HMAS JERVIS BAY

HMAS *Jervis Bay* was the first high-speed ro-pax vessel to be used in an extended defence application and presented an opportunity for other nations to gauge the military potential of the latest Incat technology. It is a matter of history that the craft made quite an impact during its tenure with the Navy.



Chief of the Royal Australian Navy, Vice Admiral David Shackleton stated *"HMAS Jervis Bay served Australia well and successfully filled a shortfall in the Navy's operational capability"*. He went on to say; *"She has been extensively trialed and assessed during her service and the RAN has obtained much valuable data for use in the future."*

HMAS *Jervis Bay* stunned US Seventh Fleet personnel during peacekeeping operations producing speeds nearing forty-five knots, more than twice the speed of any such vessel in the US Navy, and on arrival at her destination, she unloaded at a pace the new class of navy assault ships can't match.



HMAS *Jervis Bay* proved that high speed vessels have a significant role to play in performing various multi mission requirements with rapid response and mission module capabilities.



## BOLLINGER / INCAT USA 2000 - 2009

Bollinger / Incat USA was a partnership of Bollinger Shipyards, builder of a variety of high-speed Navy and Coast Guard patrol boats, and Incat Tasmania Pty Ltd, builder of the world's fastest vehicle-passenger ferries.

Formed in 2000 in response to the overwhelming interest from US forces in high-speed craft, the strategic alliance of these two world class shipbuilders provided a winning combination to market and build innovative craft designs for the US military and commercial markets.

By 2003, four Incat-built high-speed Wave Piercing Catamarans had entered military service. The HSV X1 *Joint Venture* was preceded by HMAS *Jervis Bay* for the Royal Australian Navy, and followed by US Army Vessel TSV 1X *Spearhead* and the US Navy's HSV 2 *Swift*.







## JOINT VENTURE HSV-X1

In 2001, the US Government awarded to Bollinger / Incat USA, LLC the charter for a 96-metre High Speed Craft, HSV-X1 *Joint Venture*, (Incat Hull 050). The vessel was operated by Joint Forces from the US Military and was

used as an evaluation platform for various trials and demonstrations for the different forces involved to access the usefulness of such technology in US Military and Coast Guard applications.



Originally built as a commercial Ro-pax vessel, Incat hull 050 underwent a major refit in September 2001 with innovative design and construction. The craft was upgraded and fitted with military enhancements such as a helicopterdeck, stern quarter ramp, RIB deployment gantry crane, troop facilities for 363 persons, crew accommodation, storage facilities, medical facilities, long range fuel tanks and C4ISR room.

Under the control of the US Navy, *Joint Venture* served as a command, control and staging platform for Special Operations Forces (SOF) operating around Umm Qasr in Iraqi waters in the Persian Gulf during operation Iraqi Freedom.

The vessel took part in combat operations, serving as a special operations "mothership." *Joint Venture* deployed Navy SEALs and US Marine Corps Fleet Anti-terrorism Security Teams (FAST) in Mark V craft and Rigid Inflatable Boats. The SEALs and Marines seized two major offshore oil terminals at the entrance to the Iraqi port of Umm Qasr.

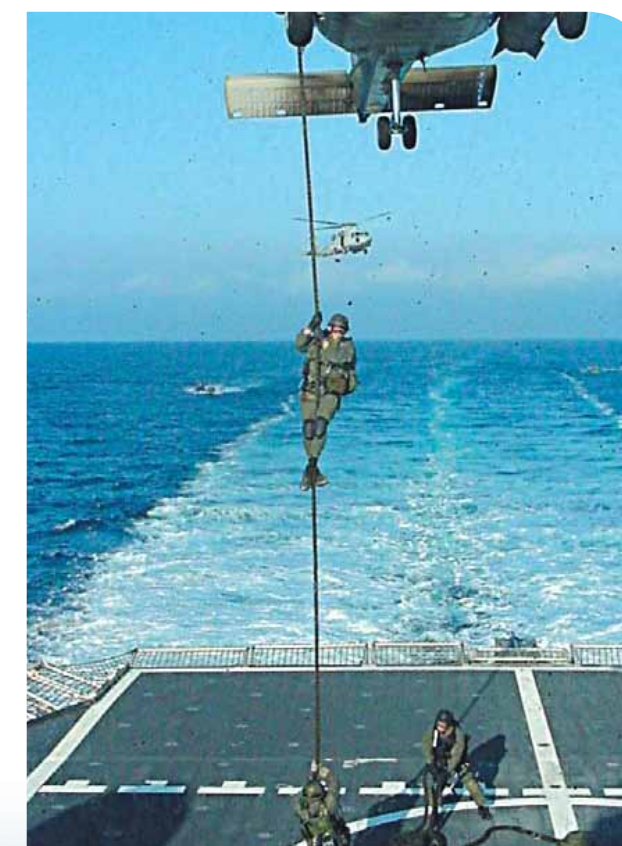
Navy Captain Phil Beierl remarked, "For the first few hours of the war, we were the most forward ship in the US Navy. Operating within sight of hostile shores an array of small boats and helicopters were able to forward deploy, saving them the daily round-trip transit from facilities based on friendly soil. This was a first for SOF as they were able to operate a significant complement of men and equipment for seven days at a time un-supplied by the big Navy ships. It improved their efficiency and thus their effectiveness."

Rear Admiral Sprigg highlighted, "Joint Venture is the result of forwardthinking and cooperative effort accomplishing a transformation of the military."

The success of HSV-X1 *Joint Venture* led to more contracts. The 98-metre USAV TSV-1X *Spearhead* (Incat Hull 060) was delivered to the US Army in November 2002 while another craft HSV 2 *Swift* (Incat Hull 061) for the US Navy, was delivered in August 2003.

Incat Chairman Robert Clifford stated "Incat is extremely proud to be chosen as the first supplier of a High Speed Theatre Logistics Vessel to operate with the military in the United States. This groundbreaking contract could be the most significant in the company's history, and an historic one for the Australian shipbuilding industry."

On completion of her military career the vessel was purchased by the Isle of Man Steam Packet Company for their Irish Sea services from Douglas, Isle of Man. For her new career Incat 050 was reconfigured from military vessel to passenger-vehicle ferry. The stern quarter ramp and helo flight deck were removed and new lounges and passenger facilities reinstated.





AT THE TIME JOINT VENTURE WAS THE ONLY LARGE LIFT CAPACITY CRAFT IN THE WORLD WITH LIFT CAPACITY EQUAL TO ITS OWN MASS. ACCORDINGLY, IT WAS THE IDEAL CRAFT TO DEMONSTRATE A HIGH UPLIFT / SPEED / RANGE CAPABILITY.



Commander Chase, the HSV project manager from US Naval Warfare Development Command (NWDC), said "In addition to its high speed, Navy thinkers are intrigued by the *Joint Venture* because of its modularity, high payload fraction, shallow draft, low manning requirements, ability to be re-configured quickly and its scalability." He noted, "A recent study by the Centre for Naval Analyses indicates the Navy could expand by a factor of five the number of ports it could access in the world by using something like *Joint Venture*, owing mainly to its shallow draft, extended range without needing to refuel and ability to be driven into and out of tight spaces. There's nothing in our Navy that looks remotely like this."



## TSV-1X SPEARHEAD

In September 2002 Bollinger / Incat USA chartered a second ship for service with the US Army, The Theatre Support Vessel TSV-1X *Spearhead* ACTD (Advanced Concept Technology Demonstrator).

USAV TSV-1X *Spearhead* (Incat Hull 060) was part of the Advanced Concept Technology Demonstrator (ACTD) program by the Office of the Secretary of Defense and the US Army. The vessel was used to demonstrate and evaluate her ability to perform during certain mission scenarios, assess its usefulness to the US military and refine the requirements for the next generation of army watercraft.

Laid down at the shipyard as a commercial passenger and vehicle ferry the vessel was modified to meet US Army requirements. TSV 1X *Spearhead* was promptly delivered on 14 November, 2002, 53 days after contract award.

Brigadier General Roger Nadeau (PEO – CS & CSS) and Colonel Michael Toal (Director of Combat Developments for Army Transportation) commented during the acceptance, on the significance of what *Spearhead* means to the US Army in facilitating their evaluations of the potential operational impact that high speed vessels such as *Spearhead* provide.

HSV-X1 *Joint Venture* and TSV-1X USAV *Spearhead* ACTD were deployed in Operation Enduring Freedom and Operation Iraqi Freedom. The vessel left Hobart soon after handover and made straight for the Persian Gulf to participate in the military build up in the region. Under the control of the US Army, *Spearhead* proved itself an invaluable asset ferrying vehicles, troops and cargo within the area of operations. While lacking the helicopter capability of *Joint Venture*, *Spearhead* incorporated the vast majority of the lessons learned from operating *Joint Venture*.

At the end of her first year in operation *Spearhead* returned to her Hobart birthplace in November 2003 for a scheduled and well earned annual overhaul. Since leaving Hobart in December 2002 the vessel had logged more than 50,000 nautical miles prior to departing the Gulf on her return voyage to Tasmanian shores.

The *Spearhead's* missions included hauling two Patriot missile battalions from Qatar to the Kuwaiti naval base. She also moved the 101st Airborne Division military police from Djibouti to Kuwait, making the 2,000-mile trip in two and a half days. The craft's predecessor, the LSV, would have needed 10 days to make the voyage and would only have accommodated the equipment, requiring the troops to fly separately.

Speaking of *Spearhead's* performance in that first year Commanding Officer Patrick May said even he had been surprised by the craft's capabilities. "We were new to *Spearhead* and didn't know what its capabilities were. We pushed it to the absolute max, sometimes to the edge, and she never let us down".

Late in 2005, the US Army Tank-Automotive and Armaments Command concluded its three year charter of the *Spearhead*. Incat warmly congratulated the US Army for having the foresight and vision to assess the high speed platform and its usefulness to the US Military and refine the requirements for the next generation of intra-theatre roles for future watercraft.

After her military career the *Spearhead* was purchased from Bollinger / Incat LLC by the government of Trinidad & Tobago for service on the 85 nautical mile crossing between Port of Spain and Scarborough.





## HSV 2 SWIFT

Coming three weeks after the US Army award of TSV X1 *Spearhead*, Military Sealift Command awarded the lease of Incat Hull 061 from Bollinger / Incat USA to support US Navy Mine Warfare Command. HSV 2 *Swift* was delivered on 12 August 2003 in Hobart Tasmania.

The third craft was contracted to serve operationally as an interim Mine Warfare Command and Support Ship (MCS), and support transformational mine warfare modular mission payload initiatives.

HSV 2 *Swift* is capable of maintaining an average speed of 35 knots or greater, loaded with 500 short tons, consisting of 350 personnel and military equipment. A minimum operating range of 1100 nautical miles at 35 knots was required by the contract, as was a minimum transit range of 4000 nautical miles at an average speed of 20 knots. Furthermore, she is capable of 24-hour operations at slow speeds (3-10 knots) for experimentation with unmanned autonomous vehicles, and to support dedicated and emerging organic mine warfare missions.

The vessel has a NAVAIR certified helicopter flight deck for operation of MH-60S, CH-46, UH-1 and AH-1 helicopters. An area protected from the weather for storage and maintenance of two MH-60S helicopters is provided to enhance aviation operations in day, night and instrument meteorological conditions.

Almost a decade on HSV 2 *Swift* remains with the US Navy in military service under a charter to Military Sealift Command, Washington DC, from owners Sealift Inc. of New York – a privately held company which operates a fleet of US flagged ships. Through Sealift the HSV 2 *Swift* is operated worldwide in support of US Fleet Forces Command and the war on terrorism. The vessel is also used for emerging operational concepts such as sea basing and the Global Fleet Station.



## HSV 2 SWIFT MILESTONES

**2003:** During flight deck certifications, HSV 2 *Swift*'s crew conducted aircraft recovery while making 43 knots (80 km/h) during one recovery and had 66 knots (122 km/h) apparent winds during another recovery.

**2004:** HSV 2 *Swift* participated in West African Training Cruise-04, an exercise designed to enhance security cooperation between the United States and participating West African nations.

**2005:** HSV 2 *Swift* left its homeport of Naval Station Ingleside, Texas to support Operation Unified Assistance, the humanitarian operation effort in the wake of the tsunami that struck South East Asia. During Operation Unified Assistance the crew conducted many firsts for the unique vessel, including 30 consecutive days at sea, supporting a helicopter detachment and its support crew for the month with high tempo flight operations as well as conducting two underway replenishments at sea.

**2005:** HSV 2 *Swift* further proved its worth during hurricane recovery efforts in New Orleans. The vessel as part of Joint Task Force Katrina, ferried precious relief supplies between Naval Air Station Pensacola and ships deployed throughout the Gulf Coast region stabilising areas affected by the hurricane. The *Swift*'s unique design made the high-speed vessel an integral part of the mission by enabling the ship access to depths of less than 4 metres.

**2006:** HSV 2 *Swift* used her speed, capacity and manoeuvrability to deliver repair parts and replenishment items from Manama, Bahrain, to Jebel Ali, United Arab Emirates, for supplying USNS Supply (T-AOE 6) in less than 12 hours. "That's one of the things a vessel like *Swift* can do - rapid delivery of intra-theater cargo," said HSV 2 *Swift*'s Commanding Officer, Commander Rob Morrison. "Supply received its shipment much faster than usual, using less manpower. Streamlining intra-theater deliveries saves the Navy money, man-hours, and aircraft wear-and-tear, and that made the 98 metre workhorse very popular in the region. "With its enormous 28,000-square-foot mission deck, the ability to traverse littoral waters, the capability of handling speeds in excess of 40 knots, and manoeuvrability that doesn't require tugboat assistance when arriving or departing the pier, the *Swift* is definitely a multi-tasker."



**2006:** HSV 2 *Swift* was called into play during the Israel-Lebanon conflict, being used to transport Humanitarian Assistance Materials from Cyprus to Beirut.

**2006:** HSV 2 *Swift* was deployed to the Far East with detachments from US Navy helicopter squadron HSL-37, Mobile Security Squadron 7, and the Second Platoon of the Third US Marine Corps FAST (Fleet Anti-terrorism Security Team) in support of theater security cooperation efforts with the Philippines, Malaysia, and Indonesia.

**2007:** In conjunction with Global Fleet Station (GFS) HSV 2 *Swift* over a six month period conducted exercises and training to ensure operational readiness with participating partnership nations, including visits to Belize, Dominican Republic, Guatemala, Honduras, Jamaica, Nicaragua and Panama.

**2010:** HSV 2 *Swift* along with various embarked Navy and Marine Corps units, departed Naval Station Mayport for a five-month deployment for Southern Partnership Station (SPS) 2010.

While in port HSV 2 *Swift* received 140 Project Handclasp pallets and two fire engines. The Wisconsin National Guard State Partnership Program donated the fire engines to Project Handclasp for transportation to Nicaragua, their partner nation.

**2012:** HSV 2 *Swift* continues to take part in various capabilities exercises demonstrating its abilities in humanitarian assistance, search and rescue, disaster relief, counter drug operations and war fighting including exercises to enhance security co-operation between US and participating nations.





## INCAT COMMERCIAL VESSELS LEND A HAND IN HUMANITARIAN AID

### **Incat Hull 057 Normandie Express Tsunami relief for Banda Aceh**

January 2005: Incat Hull 057 transported relief supplies for Banda Aceh following the tragic tsunami. Cargo included 80 pallets of bottled water, tent accommodation for 2,500 people, 40 sewage treatment systems, medical and baby supplies, and several four-wheel drive vehicles, including a fire truck.



### **Incat Hull 065 Natchan World Earthquake in Japan**

March 2011: The tragic events in Japan evoked a large scale international relief effort as the nation dealt with the enormity of the disaster. World-wide, maritime nations were quick to respond and ships of all types were deployed off the coast of Japan, providing humanitarian assistance to victims of the devastating earthquake and tsunami.

Both Aomori on Honshu and Hakodate on Hokkaido, the traditional home ports for Incat-built 112 metre catamaran Natchan World, were hectic. The Hokkaido government sending supply and personnel to the region and scenes at the ferry terminal there revealed the scale of the operation to move freight across Tsugaru Strait for onward travel to the worst affected areas.

Incat Hull 065 Natchan World was called in to operate for the Japanese Self-Defense Forces, making three round trips per day to transport soldiers and their vehicles.







## INCAT COMMERCIAL VESSEL USED FOR JAPANESE DEFENCE EXERCISE

In November 2011 Japan's Ministry of Defence chartered the Incat built 112 metre High Speed Wave Piercing Catamaran *Natchan World* from the Japanese operator Tsugaru Kaikyo Ferry for exercises by the Joint Staff Office and Army -Ground Self Defense Forces.

Examination of the concept of effective utilisation of existing infrastructure and equipment to achieve the concept is ongoing, and although there is no immediate progress for the procurement of HSV, Incat believes the trial on Incat Hull 065 *Natchan World* in 2011 is a step in the right direction.



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