

# GROWING TO BECOME A 'BIG GUY'

## C & C Technologies, Inc.

What started out as a small niche company specialising in hydrographic multi-beam surveys has really taken flight since 1992. C&C Technologies has been led in many other directions than multi-beam survey alone, growing to become a “big guy”™ with a market share in AUV survey exceeding 90% and estimated total revenues of US\$75 million in 2006.

Thomas and Jimmy Chance were raised in the survey business, helping their father John E. Chance build the largest privately owned survey company in the world. In 1992, when their father sold his company to Fugro, the Chance brothers resigned their management positions and began organising C & C (Chance and Chance) Technologies, Inc. They quickly assembled a team of diverse experts that shared their entrepreneurial spirit. Initially, C & C operated from a home office with five employees, but has now grown to over three hundred employees at seven locations. C & C is headquartered in Lafayette, Louisiana, “the Heart of Cajun Country”™, and has additional offices in Houston, Singapore, Brazil, Mexico, South Africa and the United Kingdom.

### Current Profile

C & C provides a wide range of survey and mapping services for the land and offshore oil & gas industry, the telecommunications industry and several government entities. The company has six divisions: the Land and Transition Zone Survey Division, Marine Construction Survey Division, Geophysical and Geosciences Division, NOAA Surveys Division, Geotechnical Division, and the Worldwide DGPS Services Division. Several in-house departments, including Database, Systems Development, Information Technology, Electronics, HSE, QA and mechanical fabrication department support all C & C operational divisions. The company is currently pursuing the geophysical-surveys market in Brazil and Mexico.

### DGPS Services

C-Nav is a new concept in GPS positioning in which accuracy at the mobile location is no longer a function of the distance from the reference station(s). C & C Technologies Inc. GPS Services Group began establishing the C-Nav programme to provide globally-corrected GPS (GcGPS) positioning services for the hydrographic, offshore oil-field exploration, survey and construction industries.

To achieve this the company has partnered with NavCom Technology Inc, a wholly-owned subsidiary of John Deere & Co, to provide continental implementation of a Wide Area Differential GPS (WADGPS) system for a new level of accuracy across continental distances. The system also utilises technology from the Jet Propulsion Laboratory to implement a worldwide GPS positioning solution with accuracies of a few decimetres.

The C-Nav RTG Network is a global system for the distribution of differential GPS corrections, giving a user the ability to measure his position anywhere in the world with exceptional reliability and unprecedented accuracy of better than 10cm. Because the differential GPS corrections are broadcast via Inmarsat geostationary satellites the user needs no local reference stations or post-processing for this. Due to the worldwide coverage of the geostationary satellites the same accuracy is available virtually anywhere on the Earth's surface, land or sea, from 72oN to 72oS latitude. The entire system meets or exceeds a target availability of 99.99%. To achieve this, every part of the infrastructure has a built-in back-up system. All the reference stations are built with duplicate receivers, processors and communications interfaces that switch automatically or in response to a remote-control signal from the Processing Centers. The data links from the reference stations use the internet as primary data link and are backed up by dedicated communications lines, but in fact the network is sufficiently dense to allow reference stations to act effectively as back-up for each other. One or several may fail without impairment of correctional accuracy.

### Geophysical Division

The Geophysical Division has the latest equipment for collection of high-resolution data, from shores-edge to full ocean depth. The division provides solutions using side-scan sonar, Autonomous Underwater Vehicles (AUVs), seismic systems, cesium magnetometers, sub-bottom profilers and multi-beam bathymetry systems. The company owns and leases vessels outfitted with advanced acquisition systems for the collection of high-resolution geophysical data. Vessels are equipped with various geophysical systems, allowing flexibility in choosing the right tool for the survey objective. Professional geoscientists and archaeologists interpret the data on computer workstations, providing assurances that it is presented accurately and efficiently. Such professionals are keenly familiar with MMS guidelines and have interpreted datasets from many of the offshore oil-producing provinces around the world.

C & C uses deepwater AUVs to collect detailed survey data close to the ocean floor. The data is used to generate ocean-bottom maps to ensure safe installation and operation of new underwater pipelines, cables and production equipment for decades to come. This data is also used to protect historic wrecks and environmentally sensitive areas.

### Marine Construction

The Marine Construction Division provides surface positioning and acoustic subsea positioning (LBL, USBL, HAIN & Metrology) surveys in shallow, deep and ultra-deep waters. Expert surveyors trained in offshore-survey techniques utilise specialised equipment to complete these projects. They routinely position drilling rigs, pipeline-lay barges and derrick barges used for placement of structures, templates or platforms on the seabed. Deepwater surveyors use GPS coupled with acoustic navigation techniques for accurate positioning and

orientation of oil-field equipment such as pipeline landing-end termination sleds, umbilical-termination assemblies, seabed-well templates, flowlines, pipelines or suction piles.

#### Market Share

As of January 2006, 80% of C & C revenues were derived from survey work for the oil & gas industry and the other 20% from government contracts. The oil industry projects include land surveys, high-resolution marine geophysics for hazard studies and pipeline route surveys, rig and barge positioning, acoustic positioning for ROVs, and satellite navigation services. The company reported total revenues of US\$63 million for the year 2005. For this coming year the board hopes and expects to increase revenues to UU\$75 million. Today C & C is the undisputed world leader in commercial deepwater AUV operations, with market share in excess of 90%, of which 45% is accounted for by the Geophysical Division. Over the last five years the company has completed 102 AUV projects on four continents for 42 different clients. C-Surveyor AUVs have surveyed more than 60,000km worldwide for the petroleum industry, government agencies and academic research groups.

#### View of the Future

For C & C the survey and DGPS markets have a bright future. The company is expanding into more international markets and this provides an opportunity to become more diversified and withstand regional weather cycles. Although the circumstances are to be regretted, C & C business has been helped by natural hazards that have harassed the Gulf of Mexico. Hurricanes Katrina and Rita provided three months of work for three vessels in the Gulf of Mexico for the location of missing assets and identification of moved pipelines.

Over the coming ten years C & C will continue to expand the AUV market and to explore international opportunities. The company recently won a NOAA contract for the design, building and testing of an autonomous unmanned semi-submersible vehicle. This research may lead to improved sensor development for unmanned platforms, providing safer and more efficient marine-survey operations for government and private agencies worldwide. The contract is valued at 2.8 million dollars and will be conducted over a three-year period. C & C has also recently won a 2.5 million-dollar Navy contract to test and evaluate a new sonar system with the potential to replace three systems being concurrently deployed.

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