Communications for the America’s Cup Challenge

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Abstract

Two historic papers from a special issue of the Journal in 1986 featuring the communication requirements for the America’s Cup 1986/87 challenge in Fremantle.

Introduction

In 1986, the Society produced a special issue of the Telecommunication Journal of Australia (Volume 36, Number 2) featuring ten papers on the communication needs for the America’s Cup challenge scheduled for 1986/87. Two of these papers have been selected for this historic review.

In 1983, Australia II from the Royal Perth Yacht Club in Fremantle, Western Australia, was successful in winning the America’s Cup from the New York Yacht Club, ending over 130 years of possession and 24 previously unsuccessful challenges. The race history is well known, with Australia II coming from 1/3 down to win 4/3, and the world yachting spotlight focussed on Fremantle for the Cup’s defence in 1986/87.

The first paper (Hume, 1986 [5]) provides a summary of the America’s Cup history and an overview of the infrastructure and telecommunication requirements in Western Australia. Logistically, seven syndicates challenged for the cup in the US in 1983. Initially, twenty-six syndicates indicated they were serious about challenging in 1986/87, which later was reduced to thirteen by the time of the elimination races. The paper details the necessary upgrades to dock facilities at Fremantle, and provides an explanation of the â€œ12 metreâ€‌ boat dimension rule and the race program for this first Australian defence.

The second paper (Herring, 1986 [9]) discusses the infrastructure establishment, service provision, television operations and navigational equipment. The number of additional visitors to Perth was estimated at well over one million people, of which twelve percent would be overseas visitors. This influx forced major capital works to be undertaken and helped the introduction of new technology, such as debit-card public phones. All spare telecommunications capacity in the surrounding area was also brought on-line for the event.

The other papers in this special issue of the Journal on the communications for the America’s Cup 1986/87 challenge are highly recommended for further reading and cover the following topics:

- Video and Sound Programme Network for America’s Cup;
Dennis Conner skippered the *Stars and Stripes 87* yacht to a 4/0 victory over *Kookaburra III* at Fremantle in early 1987. The Cup subsequently returned to San Diego Yacht Club in America. This was the last time twelve metre yachts were raced for the America's Cup, as the rules were changed to allow for different boat designs such as multi-hull catamarans.

References


The Historic Papers
America's Cup History and Telecommunications Needs


This paper briefly outlines the saga of the America's Cup and how the Twenty Sixth Challenge came to be held at Fremantle, Western Australia. The situation is considerably different to Newport, Rhode Island, both geographically and telecommunications-wise, and this latest challenge has many more challengers than any previous event. Telecom has had to develop the telecommunications facilities to meet all needs of syndicates, media and visitors.

THE ORIGIN OF THE AMERICA'S CUP

The saga of the America's Cup began in 1851 when a syndicate of members of the New York Yacht Club got together to build an advanced racing yacht called the America. They wanted to show off this yacht in England so they sailed across the Atlantic to Cowes, the home of the Royal Yacht Squadron. One thing led to another and a challenge was mounted between the America and the best yachts that the Royal Yacht Squadron could enter in the field. The race took place against fifteen English yachts, around the Isle of Wight, and the America was of such a superior construction that it beat the English yachts with ease. Thus the America's Cup was presented to the New York Yacht Club in recognition of this great event.

The letter of presentation which was sent from the Royal Yacht Squadron subsequently became what is known as the "Deed of Gift." The latter stated that "any organised yacht club of any foreign country shall always be entitled, through any one or more of its members, to claim the right of sailing a match for this cup." Over the past 130 years there have been 24 unsuccessful challenges to try and regain the cup from the New York Yacht Club.

OUTLINE OF SUBSEQUENT CHALLENGES

The first challenge was held in 1870, when the Englishmen attempted to win their cup, which they had lost to the Americans. In those days the challenging yacht had to sail across the Atlantic Ocean to challenge the New York Yacht Club at New York. These challenges were then held at irregular intervals up until 1980 and in total England mounted 14 challenges, Scotland 1, Canada 2 and Australia had 6 attempts to wrest the cup from the New York Yacht Club.

Many changes were made to the "Deed of Gift" from time to time as conditions varied and yachting designs advanced. The major change was that it was no longer restricted to yachts based in New York.

Some highlights of the Challenges:

In 1930 the 14th challenge was held and the location of the races was shifted to Newport because of the congestion of shipping in the vicinity of New York.

In 1958, the 17th challenge, the class of yacht was changed to the 12 metre class for economic reasons. Over the previous challenges the yachts had become bigger and better, but much more expensive and it was decided to rationalise to the 12 metre class.

In 1962 the 18th challenge was held and this was the first one where Australia challenged with the yacht Gretel.

In 1970, for the 21st challenge, trials had to be arranged between the foreign challengers to select the one to meet New York Yacht Club's defender. This was the first time that more than one challenger had made a simultaneous challenge and this time the Australian Yacht, Gretel II, beat the French entry for the right to make the challenge.

THE 1983 SUCCESSFUL CHALLENGE

The 25th challenge, held in 1983, was notable for the increased number of challengers. In fact, there were seven yachts entered from five nations so that an extensive pre-selection series of races was needed. The Royal Sydney Yacht Squadron was selected as the Challenger of Record and many races were conducted over a 3 month period at Newport.

There were four yachts entered to become defender of the cup for the New York Yacht Club. Over the same 3 month period trials were conducted by the New York Yacht Club to pick the best defender and finally Liberty, skippered by Dennis Conner, was selected.

The history of the challenge is well known, with Australia II being down 1-3 after the first 4 races and then coming back to level the score at 3 all. In the tradition of America's Cup there was plenty of controversy during these races. The final race was then won by Australia II to make it a 4-3 victory and the public and media attention was received as never before. It was realised that the New York Yacht Club had finally lost the cup.

REACTION IN WESTERN AUSTRALIA

The Royal Perth Yacht Club suddenly found themselves to be the possessor of the America's Cup and immediately set about preparing for a new challenge series. An avalanche of challenges was received by the Club and, at the time of paying the first deposit, there were 26 syndicates that said they were serious about challenging for the cup.

The W.A. State Government and the Royal Perth Yacht Club quickly decided that there was insufficient accommodation to cater for such a large number of challengers and a new marina was put on the drawing-board. With the large interest being generated over the America's Cup, it appeared that Perth and Fremantle were in for a tourist
invasion and careful preparation was needed to ensure that the 26th Challenge would be a great success.

It was realised very early by Telecom that extensive telecommunications facilities would be needed to support the 26th Challenge for the America's Cup. Early discussions were held with people who had been at Newport at the time of the successful challenge to assess the communications provisions and shortages at that time. These discussions showed the need to prepare a very extensive media centre to house a large number of media personnel who could be expected to cover the event. Similarly, television could be expected to place heavy demands on the infrastructure. To assess the situation at first hand the author visited Newport late in 1984.

THE SITUATION IN NEWPORT, RHODE ISLAND

Newport is about 200 km from New York, 50 km from Providence, the capital of Rhode Island, and in summer is the centre of a very popular yachting season. Several oceanic events start from Newport, including the famous annual Newport-to-Bermuda race. Newport is located on Narragansett bay, which houses 25 individual yacht clubs. The America's Cup challenge is just one of a series of racing carnivals to be held on Narragansett Bay during the summer.

Newport is historically orientated as many of its buildings date back to the 17th Century. The main street, Thames Street, feeds the shipyards, where the 12 metre yachts were docked and the area is so compact that it is only 100 m from the town to the main street. The media centre was located in Thame Street among the shipyards so that it was a short walk between any of the points of the waterfront. As the crowds built up Thames Street had to be closed to make it available for pedestrians.

Newport has hosted several challenges, which have all been very one-sided affairs. As the event has grown, Newport has been able to accommodate it with little effort. The seven challengers in 1983 were located within the existing harbour facilities. Fig 1 shows the typical berthing arrangements which were temporarily converted for syndicate use. The large restaurant "Christie's" was a favourite haunt for Australian supporters.

The local telephone company provided telephones at Newport. For the 25th Challenge they installed additional lines and telephones in the harbour area and in the media building. Telecommunications services were provided by Western Union International using cable pairs provided by local telephone company. Apart from these additional lines and augmentation of the circuits from Newport back to Providence, the capital of Rhode Island, there was little work needed by the telephone company. At that time there was no international dialling and all calls had to be placed through an operator. There was no paging or mobile telephone service available.

The major television networks in the United States largely ignored the America's Cup series. The local television station provided outside broadcast links to a boat, helicopter and the blimp and a video link from Newport to Providence. This station provided live coverage during the final series.

The only radio broadcast coverage was provided by the local Newport Radio Station. They used a reporter on a boat following the race and provided frequent updates on the contestants' positions during their normal programme.

The arrangements outlined above worked well during the elimination series of races and the first few races of the final series. However, when Australia II won its second and then its third race there was a totally unprecedented increased interest in following the event. Suddenly Newport was deluged with media representatives who wanted to cover the final races and television stations were demanding live coverage of the event. Only the NBC network was able to get the live coverage because it has affiliations with the local television station in Providence. The local radio company was also able to sell its coverage of the America's Cup extensively throughout the United States, using dial-up STD circuits.

The overall impression of Newport was that they were not prepared for the huge increase in interest during the later races. To avoid the situation at Fremantle,
telecommunications facilities would have to be augmented considerably.

**COMPARATIVE SITUATION AT FREMANTLE**

Fremantle is 16 km from Perth at the mouth of the Swan River and is the major port for Western Australia. It is also an historic site, being the point where the first European settlers landed here in 1829. The aim was to develop America’s Cup facilities in a compact location to allow people to walk between the various facilities.

It became apparent that the Fishing Boat Harbour would be able to provide some facilities for the visiting syndicates. In fact two syndicates, Bond’s Australia II and the New York Yacht Club, established themselves in this harbour at the end of 1983. Not all of the visitors could be accommodated in this area, so an additional marina called Challenger Harbour was constructed. Fig 2 shows a panoramic view of the harbours during preparations for the elimination series.

The most suitable existing building for the media complex proved to be a hall owned by the Fremantle Port Authority (Hall 1). This is located about 400 m from the new Challenger Harbour towards the main Fremantle Harbour. Fig. 3 shows the layout of the area and the location of the significant points together with berthing arrangements for the syndicates. The theatre in the Fremantle Port Authority building was also designated as the media interview room.

The area selected is not as compact as Newport. This is to be expected as the Fremantle challenge will be a much larger event involving many more syndicates. There are several advantages at the Fremantle location as compared to Newport:

- the site is free of main streets and traffic will not be a problem;
- there is a railway station in the area to provide access for large numbers of people without the necessity of providing parking space;
- the access from the marina to the America’s Cup course area is very direct for the competing yachts;
- the main deep water port in Fremantle for overseas ships is within walking distance;
- the area is more open and will allow larger groups to be accommodated.

Telecom Australia is in a much better situation to provide facilities for this event as it provides all types of communication facilities and is able to plan the complete facilities for telephones, telex, facsimiles, data, TV bearers, radio programme lines, mobile telephones and radio paging. The early selection of the basic plan enabled Telecom to move into the construction phase of the new facilities.

**ASSESSMENT OF TELECOMMUNICATION REQUIREMENTS**

Because of the long lead times to purchase telecommunication equipment, early advice of the requirements was needed. This proved impossible to obtain as those involved had not reached that stage of their planning. From discussions it appeared that the syndicates and the media complex would be the main focus for telecommunication efforts. The author’s overseas visit included other locations which were related because they were all sporting events which aroused worldwide interest. The experiences of overseas organisations had then to be translated into what would be required in the Fremantle situation.

All the early planning work by Telecom was done by the Engineering Department as an extension of normal network development activities. The increased activity at Fremantle will require additional telephone services, causing greater traffic loads on connecting junctions. An additional 1000 lines of subscribers capacity was provided, together with augmented cable to the marina area and the media complex. Junction relief was a more complex problem requiring the earlier installation of an optic fibre cable, containing 10 fibres, from Perth to Fremantle. This cable is now providing circuits between the Wellington and Fremantle exchanges on a 140 Mbit/s bearer. Additional switches have been provided at coastal

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**FIG. 2. View from Fremantle Port Authority Office of the harbours for the America’s Cup.**

HUME — America’s Cup History & Telecommunications Needs.
FIRST AUSTRALIAN DEFENCE
THE AMERICA'S CUP 1986-87
WESTERN AUSTRALIA

RACE PROGRAMME

13 CHALLENGERS – 6 COUNTRIES

LOUIS VUITTON CUP

ROUND ROBINS
ROUND ROBIN 1 OCT 5-20
ROUND ROBIN 2 NOV 2-19
ROUND ROBIN 3 DEC 2-19
Each yacht will meet the others once.

LOUIS VUITTON CUP SEMI-FINALS
DEC 28-JAN 7, 87
The four top-scoring yachts will enter the semifinals.
The first yacht to win four races.

LOUIS VUITTON CUP FINALS
JAN 13-23, 87
The winner of the Louis Vuitton Cup is the one who first wins four races.
He is selected to fight against the best defender in the final match.

4 DEFENDERS – AUSTRALIA

DEFENDER'S CUP

SERIES
SERIES A OCT 18-29
SERIES B NOV 10-23
SERIES C DEC 6-21
Each yacht will meet the others twice.

SERIES D
JAN 10-16, 87

DEFENDER'S CUP FINALS
JAN 13-25, 87
The two top-scoring yachts enter the finals.
The winner defends the America's Cup against the Louis Vuitton Cup's winner.

AMERICA'S CUP

CHALLENGER — DEFENDER
JAN 31-FEB 15, 1987
The first yacht to win four races.
Communications Infrastructure and Commercial Aspects — America’s Cup

C. N. HERRING

An event of the magnitude of the 1987 America’s Cup Defence places great reliance on a wide range of quality communications services. Their operation and efficiency of connection will be closely appraised by many people and the outcome, Australia will be judged on the world. The organisation arrangements for the event, facilities, touristic attractions and other activities all play a part in demonstrating the long term benefits to both the State and Australia.

COUNTRY

The America’s Cup is now a major international event. It is on the world market for competitive bids in the manner as the Commonwealth or Olympic Games. Cities and nations would spend millions of dollars to try to attract it and hundreds of millions to service it. Beginning life as a leisurely yacht regatta 135 years ago, the Defence of the Cup has now become a contest between nations generating intense interest in sport, travel and technology.

An event of this magnitude demands and places great reliance on a wide range of communications services. In this regard, Telecom, the National carrier and major provider and manager of telecommunications within Australia, has established an infrastructure to meet the resulting communications demand, a demand which will not only extend into yachting syndicates but also from the many sponsors and organisers, the hospitality industry, entrepreneurs, tourists to Western Australia and the media.

INFRASTRUCTURE ESTABLISHMENT

In planning for the Cup events, Telecom actions have been guided by adoption of the following principles —

- Any decision to undertake major works was strongly influenced by their potential for post-Cup community use.
- The application of standard charges to the provision of telecommunications services for yachting syndicates, sponsor operations, the media, etc.
- The charges for provision and extension of underground cables to locations beyond those normally serviced by Telecom should be at commercial rates.
- Non-standard work undertaken on a discretionary basis at a customer’s request should be charged at commercial rates.
- The opportunity should be taken to promote and advertise Telecom’s role in support of this major event.

Towards the end of 1983, and soon after Australia’s success at Newport, funds were requested by Telecom WA for inclusion in future years capital works programs, especially for the Challenge and related Cup events. At the same time, a letter to the State Government offered Telecom’s support and expertise in assisting with the staging of the 1987 Defence. Late 1984 saw the first capital expenditure of funds as work to upgrade telephone exchanges was started and external plant crews commenced laying ducts and cables to service 12 metre syndicate operations in the Fremantle Fishing Boat Harbour, Challenger Harbour and the Fremantle Sailing Club. Attention was also directed to the needs of the media at this time and planning, in conjunction with the Fremantle Port Authority, to upgrade facilities along Victoria Quay (which alone will become home for some 10,000 people living in luxury liners) was undertaken.

At the beginning of 1985, Telecom devoted considerable attention to supporting both the City of Fremantle and business operations in their plans to upgrade facilities, accommodation and other developments in the Fremantle area. The City commenced an extensive programme of footpath replacement and construction, together with roadworks and drainage projects. Business groups became involved with housing developments, hotel upgrading and other activities. In almost every case, Telecom underground plant was affected. These early works, and others, were completed at Telecom expense to provide a significant part of the initial establishment of an America’s Cup communications infrastructure.

SERVICE PROVISION

As overseas yachting syndicates arrived in Fremantle with their plans for headquarters and dockside facilities, commercial negotiations were quickly concluded to ensure accommodation was immediately provision of telephone, telex and data services. In many cases, cable extensions into transportable accommodation were required and special facilities such as locks and private metering equipment fitted to telephones to control usage.

Having upgraded telecommunications including all internal cabling at the Royal Perth Yacht Club (RPYC) in Perth, attention was then directed to the needs of the newly established RPYC annexe located in the midst of activities in Challenger Harbour.

This venue, being the Race Central Headquarters, requested a flexible communications plan to cater for not only the yacht racing, but also for activities in up to 22 hospitality areas and to service 3 associated jetties with 60 telephone points.

In conjunction with the Club management and architects, cabling was extended from the clubhouse reception and lounge areas to locations within the area of lease to service the 'Wimbledon style' marquee accommodation for corporate bodies, and to the three jetties for provision of a range of immediate communications options to boats on both a temporary and semi-permanent basis. Other locations
In addition to requiring personal accommodation, many businesses are seeking locations to display and market their respective products and services and to promote them through media liaison. Since early 1985 there has been a constant demand for Telecom to provide communications advice and service to these groups. The large numbers of business and professional conventions being held during the Cup period have added to Telecom's workload. Two concurrent events that will highlight Western Australia's economic importance will be the Perth America's Cup International (PACI) Exposition to be held in Fremantle in November 1986 and PacRim '86, an international symposium of finance, trade and investment interests centred on the Pacific Rim region to be held in Perth from November 17 to 19. Each of these events demands international communications of world standard.

Additionally, the America's Cup Festival of Sport, September 19 to February 20, which includes a world boxing contest at the new $280M Bunbury Island Casino, a $1,000,000 horse race and other entrepreneurial activities have required forward planning to ensure provision of adequate communications facilities.

The mini-America's Cup, usually conducted at Cowes on the Isle of Wight during the Admirals Cup, and sailed in isolated down 5-metre replicas of 12-metre yachts will, in 1987, be sailed off Bathers Beach, Fremantle between January 27 to 29. The Beach will be an ideal amphitheatre for the mini-Cup because it has vantage spots along the South Harbour and Challenger Harbour. It will also be popular for spectators wishing to view the departure and return of the 12-metre boats on both race and lay days. Anchorages and moorings between Rockingham, 20 nautical miles south of the America's Cup course and Hillarys marina at Ocean Reef, just north of the race area will "park" an armada of spectator vessels ranging from 10-metre sportfishing launches to 70 metre floating palaces, all visiting to see the competition. For the larger vessels private charter companies are providing visualising, fuelling, sewage disposal and commuter transport services with computers being used to co-ordinate the many needs.

Overhead a 59 metre helium-filled airship will be employed as a television camera platform and for airborne advertising. Other airspace will cater for up to 40 helicopters hovering over the courses with fixed wing aircraft operating above.

THE BOTTOM LINE
It will cost the Royal Perth Yacht Club (through its trust company ADAC — Australia’s Defence America’s Cup 1987 Pty Ltd) some $4M to stage the first Australian defence of the Cup.

The majority of this money will be provided by major sponsors and companies who have signed agreements to use sponsors’ and licences’ symbols, along with the sale of television and radio broadcast rights and “Official Supporters Hospitality Packages.”

The Federal Government gave a direct grant of $30M and the capital cost to the WA State Government for preparations is expected to be about $54M.

Much of the Government expenditure, however, can be classified as payment for improvements in the social infrastructure of the region with a useful life well beyond the America's Cup.