

**14th CHRIS MEETING  
15-17 August 2002, Shanghai, China**

**SOUTH AFRICA : CURRENT STATE OF ELECTRONIC CHART PRODUCTION**

**Introduction**

Since the early 1990's South African Hydrographic Office (SAN HO) had compiled charts digitally using the Laserscan Lamps1 cartographic system. In the mid 1990's the Laserscan Lamps2 system was purchased to enable the SAN HO to produce S-57 Electronic charts. By the end of 1999 it became clear that Lamps2 was not suitable for this purpose and a decision was taken to procure Dkart as a replacement system.

In the beginning of 2000 the SAN HO and C Map (Norway) began a pilot project whereby CMap would vectorize and S57 code South African navigational charts and the SAN HO would validate the datasets. SANHO acquired two licences of Dkart Editor for this purpose. SAN 1011 and SAN 118 was supplied and processed as a pilot project to determine and refine procedures and standards. This was successfully concluded by the end of May 2000.

In June 2000 a formal agreement was signed between the two parties and a work program was established. Priority was assigned to producing datasets for all major harbours and approaches, critical waterways including IMO Traffic Separation Schemes.

The delivery of new SA Navy ships has resulted in the emphasis being to validate charts in the Cape waters first.

It is intended to market our electronic charts on a chart per cell basis and assign navigational purpose as follows :

SAN Harbour charts	(5) harbour
SAN Harbour Approaches charts	(4) approaches
SAN 100 000 and 150 000 Series charts	(3) coastal
SAN 300 000, 600 000 Series	(2) general
SAN 1 000 000 Series and all other small scales	(1) overview

The SAN HO currently has four Dkart Editor licences, three Dkart Publisher licences, one licence each of Dkart Nav aids, Catalogue Server and Archives.

Validation tools used are Dkart Inspector (built into Editor, two Seven Cs Analyser and Transas NaviSailor 2000).

**Staff**

Currently two staff members are actively involved with S-57 matters of which one is a contract worker. Three additional permanent staff members are being trained inhouse to assist.

**Data Capturing**

Conversion of data to S-57 will be in accordance with the encoding rules published in IHO publication *S57 Appendix B1 Annexure D INT1 TO S57/52* (Version 3.1 of the Standard) and supplemented by SANHO coding decisions.

The line quality of these datasets must be suitable for use in DKart Publisher for paper chart production.

**Progress Summary as at 31 July 2002**

<b>Total charts :</b>	<b>97</b>
Charts being prepared for CMap :	17
Charts at CMap :	36

Charts vectorized and returned to SANHO :	17
Charts still to be prepared by SANHO :	27
Charts being validated by SANHO :	1
Charts sent to UK IENCCC for validation :	0
Charts validated and returned by UK IENCCC :	0
ENC Datasets released for commercial distribution :	0

## DETAILED PROGRAM

### Charts being prepared at SAN HO for Cmap

#### Harbour and Approaches

SAN 1003    SAN 1022    SAN 2052

#### 1: 100 000

SAN 150

#### 1: 150 000 Series

SAN 123    SAN 124    SAN 129    SAN 130    SAN 134

#### 1: 600 000 Series

SAN 54    SAN 55    SAN 56    SAN 57    SAN 58    SAN 61

#### Small Scale Series

SAN 1    SAN 5

### Charts Sent to Cmap for Vectorizing and S57 Coding

#### Harbour and Approaches

SAN 1013    SAN 1014    SAN 1016    SAN 1025    SAN1027    SAN 1029    SAN 1030

#### 1: 150 000 Series

SAN 113    SAN 114    SAN 115    SAN 116    SAN 117    SAN 119    SAN 120    SAN 121  
 SAN 122    SAN 125    SAN 126    SAN 127    SAN 128    SAN 130    SAN 131    SAN 132  
 SAN 133    SAN 135

#### 1: 300 000 Series

SAN 76    SAN 77    SAN 78    SAN 79    SAN 80    SAN 81    SAN 82    SAN 83  
 SAN 87

#### 1: 600 000 Series

SAN 59    SAN 60

### Charts returned by Cmap

#### Harbour and Approaches

SAN 1010    SAN 1011    SAN 1012    SAN 1015    SAN 1017    SAN1020    SAN 1024    SAN 1025  
 SAN 1030    SAN 1031    SAN 1032    SAN 1033

#### 1: 150 000 Series

SAN 118

#### Small Scale Series

SAN 2    SAN 3    SAN 4

**Charts being validated by SAN HO**

**Harbour and Approaches**  
SAN 1017

## **Charts still to be processed**

### **Harbour and Approaches Charts**

SAN 1001 NE (2002)  
SAN 1002 Transformation issues to be resolved  
SAN 1009  
SAN 1021 NE pending  
SAN 1022

### **1: 300 000 Series**

SAN 71 – 75 Namibian waters

### **1: 600 000 Series**

SAN 51 – 53 Namibian waters

### **1: 1 000 000 Series**

SAN 90 to be published Nov 2002

### **Islands**

SAN 2003 WGS 84 transformation to be resolved

### **Small Scale Series**

SAN 27  
SAN 28  
SAN 2004

### **Small Craft Series**

SAN SC 2 –5, 9, 12

## **Charts not yet published**

SAN 84 - 86  
SAN 91 - 95