

# TNC-1G

## Flight Management System

The TNC-1G system is designed to be used as part of airplane and helicopter integrated avionics. The TNC-1G accomplishes FMS functions such as navigational tasks work with the aeronautical database, flight routes, formation and interface with autopilot or flight director



The product has a handy interface which provides access to the main modes required in-flight with a press of a single button. Information is entered from the alphanumeric keyboard. The instrument has a high-contrast 5" colour display, large clearly legible fonts and contrast background, that reduces the pilots fatigue and makes the work more easy. The aeronautical database including information on the upper and lower airspace, stored in a compact flash. The product enables storage of and operation with two aeronautical

databases (the current and next AIRAC cycle), which, along with the use of the compact flash, makes the updating an easy process for the airline. The TNC-1G has a built-in GLONASS/GPS sensor; it implements RAIM, FDE and PRAIM functions. The product complies with the TSO-C129 requirements for classes A1, B1 and C1; RNP 1 and RNP 5 requirements, and also includes a number of additional functions for easier work. For example, routes can be planned by using both-points and airways. Furthermore,

the already formed routes can be viewed in the Flight Plan format. With the use of an elaborate filter system, the necessary procedure is readily selected and included in the flight plan. The capability to adjust the airborne equipment with the TNC-1G allows reducing the number of control panels used on the aircraft, whereas the automatic frequency control function in the enroute flight relieves the workload on the crew and makes the flight more comfortable.

```

RTE 1          TUNE          RTE 2
NEXT LEG. TURN TO 102.7°
COM1          COM2
-----
+ VOR1          RCL          VOR2 →
1 118.000 5 118.025
+ DME1          2 118.005 6 118.030
+ ADF1          3 118.010 7 118.035
+ ILS1          4 118.015 8 118.040
+ RCL          ILS2 →
          SET →
  
```

```

RTE 1          MNVR DME ARC          RTE 2
NEXT LEG. TURN TO 034.7°
+ FIX U          POINTS LIST →
+ DME ARC          FR 100.0° TO 200.0° →
002.40KM
+ CLOCK
+ ANTI
          CALC WPT →
+ RETURN          ACTIV →
  
```

```

RTE 1          NAV          RTE 2
NEXT LEG. TURN TO 034.7°
DTK(M)  DST(KM)  ETO
+ FR ULLI          MNVR →
035 ° 27
+ TO ULSS          DST/ETO →
159 ° 169 14:22 Z
+ NX ULNN          ALT/WX →
          15:02 Z
BRG 034.5 ° TRK 035.4 ° NAV SMR →
RNG 25.87 KM GS 406 KM/H CORRECT →
XTE 0.11 KM ETE 0:03:49 Z
  
```

```

PLAN EDIT
WPT
+ AWY 1 ULLI BY DELETE →
+ OVER/BY LINK →
+ ADD BEFORE CALC WPT →
+ ADD AFTER
+ APPLY CITY NAME ULSS NAME →
SANKT-PETERBURG/RZHE' LAT
N59°58.80 E030°35.06 LON →
+ RETURN
  
```

```

RTE 1          LIST VHF          RTE 2
NEXT LEG. TURN TO 034.7°
+ CODE SPB
S-PETERSBURG/PULKOVO ADD TO RTE →
N59°48.40 E030°16.96 ADD TO RCL →
113.40 VOR/DME
ELEV 0 M
PPOS BRG(M) 146.7° NRST →
DST 2 KM
+ RETURN
  
```

```

RTE 1          NAV ALT/WX          RTE 2
NEXT LEG. TURN TO 034.7°
ALT/FL(M)  TLW / IAS / TAS(KM/H)
ULLI 0@ 300 0/ 0/ 0
ULSS 0@ 235 0/ 180/ 180
ULNN 4@ 500 0/ 180/ 180
UL00 12@ 500
  
```

## MAIN TECHNICAL CHARACTERISTICS

Maximum dimensions and weight	Power supply
147x169x120 mm; 2.5 kg	27 V, 30 W (max)

## DISPLAY CHARACTERISTICS

Screen size	5"
Matrix resolution	320 x 240 pixels
Brightness	At least 680 cd/m <sup>2</sup>
Contrast ratio	800:1
View angles	±80° horizontally, ±55° vertically
Built-in GNSS	GLONASS/GPS, 12 channels
Compact flash	CF 512 Mb
Immunity to environmental factors	DO-160D (A1/B1)XCAB[R(BA)(BA1)/UG]XXXXXXZAABZ[RR]MXXXX. Operating temperature : from - 40°C to +55°C Limit temperature: from - 60°C to +85°C
Keys	11 functional, 12 unnamed, 42 alphanumeric

## INTERFACES

ARINC 429	8 inputs /4 outputs
ARINC 646 (Ethernet)	1 channel
RS 232	1 channel
Discrete commands	2 inputs/ 2 outputs
5 V, 400 Hz	1 input

