WAPUG SPRING MEETINGS : 2 AND 24 APRIL 1985
RECENT AMENDMENTS TO THE WASSP PACKAGE

Improvements to the software include the following :

WASSP-CHK
Better data checking facilities
Checking of the program control data file

WASSP-RAT
Better data checking on input data
Additional pipe shapes

WASSP-HYD
Better data checking on input data
Additional pipe shapes
User-defined head-discharge relationship for the continuation
   orifice from an on-line tank
User-defined areal reduction factor
User-defined design discharge downstream of a tank

WASSP-SIM
Better data checking on input data
Improvements to the line printer output
Additional pipe shapes
Better accounting of flow in a surcharged group of pipes discharg-
   ing to a tank (with no surcharging downstream of the tank)
User-defined head-discharge relationship for the continuation
   orifice from an on-line tank
Ability to default orifice geometry with on and off-line tanks
   for both continuation and overflow orifices
User-defined areal reduction factor
Calculations of free surface flow in long pipes
User-defined design discharge downstream of a tank

The Fortran 77 compiler version has improved and simplified file
handling procedures and is therefore considerably easier to
mount than the Fortran 66 version.   The Fortran 77 version
also has comprehensive testing and error reporting on all
read statements

Specific errors corrected :

WASSP-RAT
Incorrect terminator on created SSD file

WASSP-HYD
Creation of volume in off-line tanks
Inaccurate prediction of wave speed in very flat pipes

WASSP-SIM
Array bound errors on the number of ancillaries
Incorrect parameters for box culverts
Initialisation of the flow depth in pipe downstream
   of a tank (affects calculation of flow through on-line tank)
Incorrect parameters for egg-shaped pipes
Incorrect calculation of the level-pool backwater effect in a
      pipe with free surface flow upstream of surcharged manhole
      (affects calculations involving tank severs)
Incorrect notional level downstream of a pumping
   station
The special case of no continuation orifice downstream of a tank
   was not permitted
Incorrect initialisation of flows and water levels
   upstream of an outfall under level control (affects level
   control on outfalls)
Oscillations in some complex networks with tanks
Incorrect depth of surcharging recorded in manholes
   where water is lost at the surface
Pipes occasionally 'hanging' in surcharge when water
   lost at the surface (creates absurd volume)
Pumped overflow from on-line tanks did not work
Inaccurate prediction of wave speed in very flat pipes

There have also been a number of amendments to formats and error
messages.

A new set of amendments to Volume 2 will be issued in 1985.
All licence holders with existing maintenance contracts will
receive copies of the amendments automatically.   Others wanting a
set of amendments should apply to HR after 1st May 1985.

R K PRICE
21 March 1985

WaPUG

WALLINGFORD PROCEDURE USERS GROUP (WAPUG)

2nd APRIL 1985, LONDON

A. Eadon welcomed delegates and briefly described the events leading
to the formation of the WAPUG Steering Committee. It was explained
that WAPUG is to report to the W.A.A. Sewers and Water Mains Committee
via the Sewerage Rehabilitation Working Group, currently chaired by
G. Sheldon of North West Water. The Steering Committee members were
individually introduced.

Meeting chaired by Dr. D. J. Balmforth, Sheffield City Polytechnic and
attended by 130 delegates.

Session 1;   Recent amendments to WASSP
             Dr. R. K. Price, Hydraulics Research Ltd.

Dr. Price introduced the software contents of WASSP and the improvements
incorporated in Version 7 of the package. Many changes have been made
to WASSP since Version 4 was launched in January 1982 resulting from
the greater variety of user experience.

Some of the major problems with WASSP-SIM were highlighted including
free surface backwater effects, looped flows and hydraulic instability
at the transition from free surface to surcharged flows.

Three types of improvements were outlined as follows:-

a) Modelling improvements, including:-
        Rainfall run-off hydrograph time increment standardised at
        60 seconds.
        Free surface flow in long flat pipes more accurately predicted.
        Level pool storage effect upstream of surcharged pipes
        accounted for.
        Better initialisation of flows and levels in tanks and wet wells.
        Level outfall controls improved.
        Surcharged weir overflows improved.

b) Facilities, including:-
        Additional pipe shapes.
        User defined aerial reduction factors.
         "   "   initial levels in tanks and wet wells.
         "   "   discharge limit downstream of tanks.
         "   "   head-discharge relationship for continuation orifice.
        Better checking of input data.
        Run-time error checking.
        Line printer output, e.g. warning remarks.

c) Software:-
        Improved file handling - particularly with Fortan 77
        SIM array sizes altered.
        Micro versions - Sirius, Apricot PC or Xi, IBM xT.

Further details of improvements are listed on the notes distributed
at the meeting.

Other enhancements underway include:-

    Improved run-off calculation.
    Spatial distribution of rainfall.
    Free surface backwater effects (NB. 5 or 6 times longer to run)
    Surface flood routing.
    Open channel version (particularly for overseas use).