

Team  
*Orange*



**3rd Daily Report**  
**August 16th**

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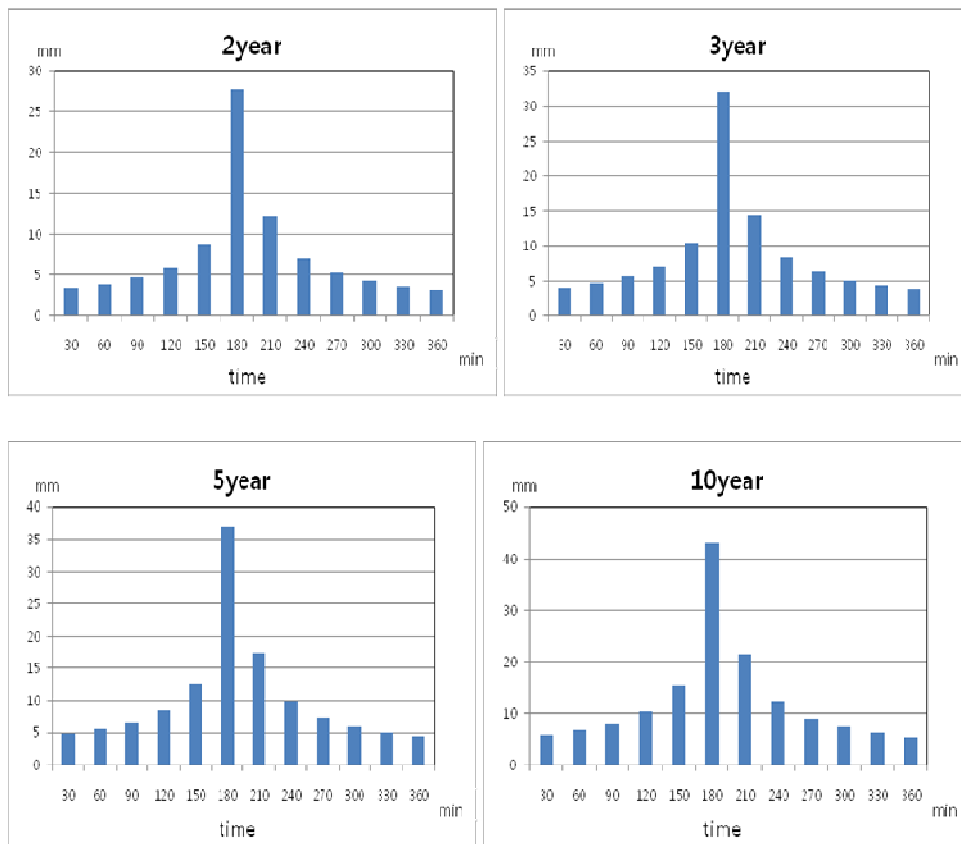


## INTRODUCTION

Today the whole day was spent for our teamwork. We have finished the hydrology, GIS and MIKE 21 part. Tomorrow in the morning session MIKE 21 and MOUSE will be coupled using MIKE FLOOD. After coupling them, possible flood reduction techniques will be discussed.

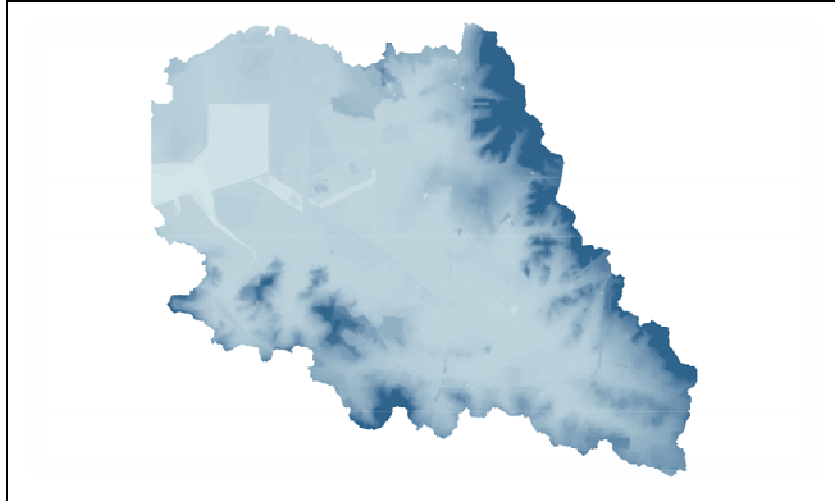
## HYDROLOGY

Hydrograph shown below has been made. These numbers mean return period for 2, 3, 5 and 10 years.



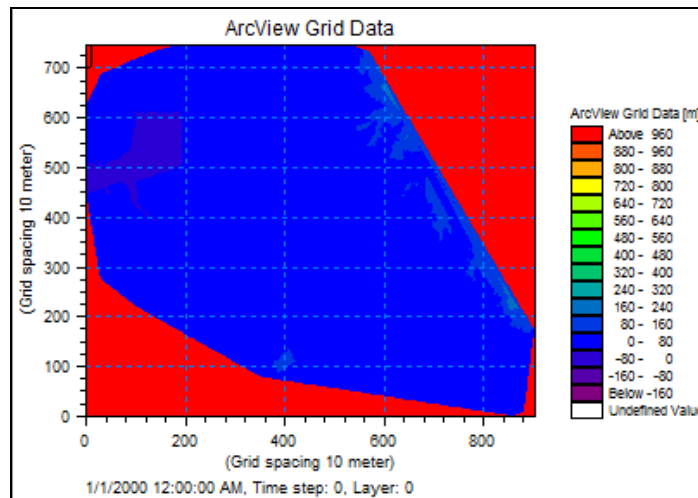
## GIS

There were some problems with the GIS and proper solution was found in the evening. The GIS work is completely finished.

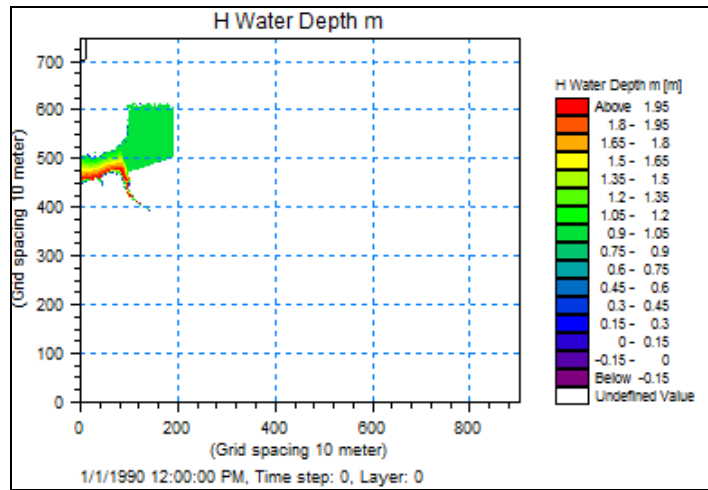


## MIKE 21

It has been decided to view the effect of flood in MIKE Flood by coupling MOUSE and MIKE 21. MIKE 21 is the 2D modelling software tool used mainly for the coastal and marine applications. DEM created by GIS team is converted into grid file using Grid2MIKE tool in MIKE Zero toolbox. The grid file i.e. the bathymetry is used in MIKE 21 Flow Model (Classic). The picture below shows the bathymetry of the model domain.



All the boundaries are closed since tidal model is developed and later this tidal model is coupled with MOUSE using MIKE FLOOD. Moreover tides are generally large in the region. Since tides are not considered here, the boundaries are closed. Flooding and Drying is enabled by having 0.25m as drying depth and 0.5m as flooding depth. Manning's resistance  $32\text{m}^{1/3}/\text{s}$ . The results are stored for every 1 minute. The following is the screenshot of the result which can be coupled with MOUSE using MIKE FLOOD.



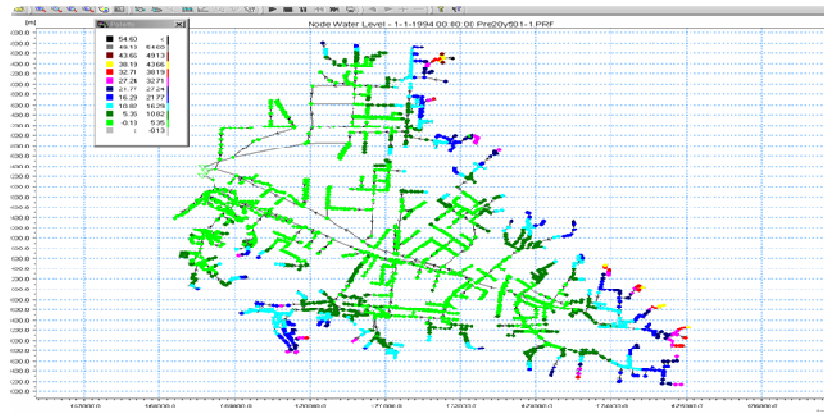
## MOUSE

Today we imputed the times series rainfall on MOUSE and we run the simulation.

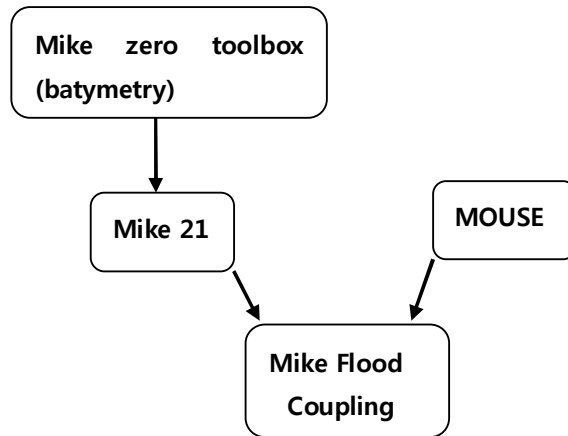
So, we find a problem: We had a lack of data for the pipe line.

Solution: We find a file with this data needed.

Tomorrow we will try again with this new file to run the simulation better.



## FUTURE PLAN



Finally with our Team's MISSING CARTOON :P (Spot our Cartoon and win a cup of kimchi soup!!...open for all teams :P)

