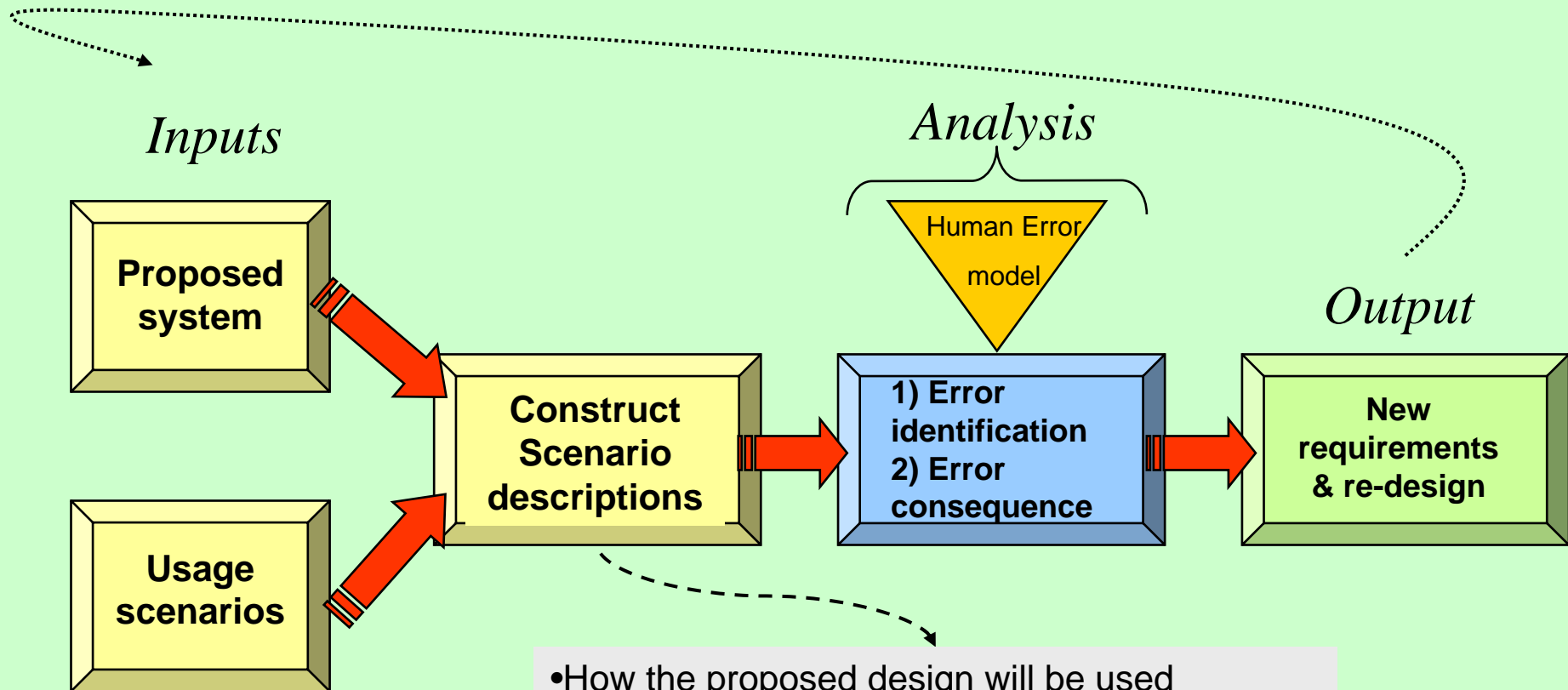


Human error assessment methods

- Concerned with early evaluation for design
 - (Cf. Cognitive walkthrough etc.)
 - Qualitative not quantitative
 - Used by engineers not human factors specialists
- THEA: Finished
- CHLOE: Version 1
- Barrier analysis: In progress

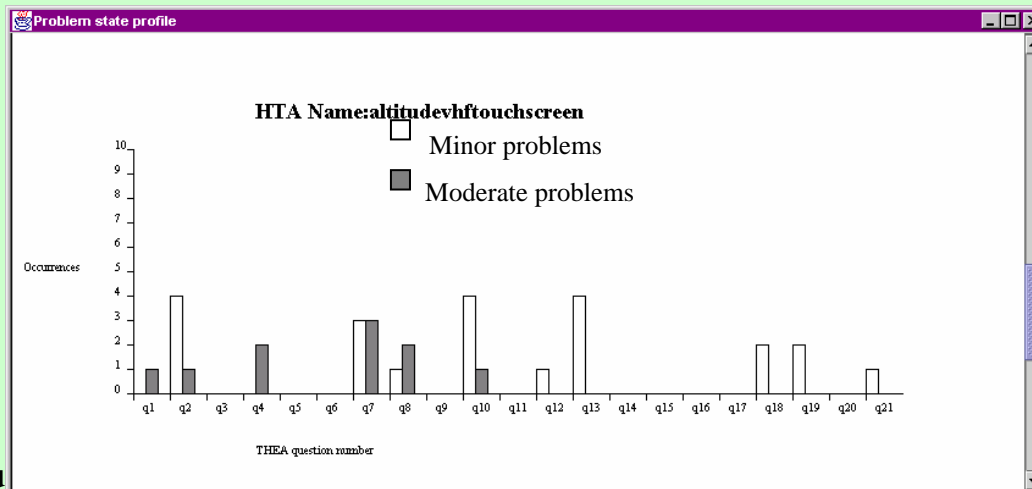
THEA - the process

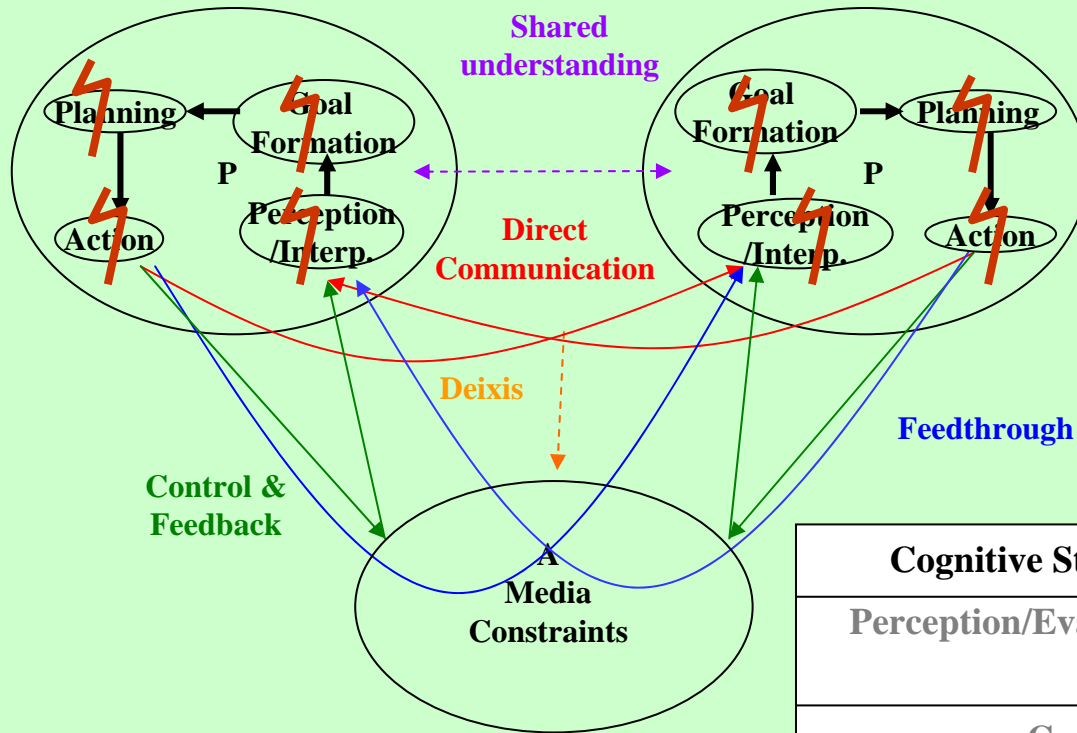


- How the proposed design will be used
- Evaluation of a design from a user-based perspective - how it will cope in the real world
- Concrete vs Abstract

THEA Results

- Results Format
 - severity ratings (minor/moderate/severe)
 - electronic tool -> graphical representation of results
 - design issues / recommendations





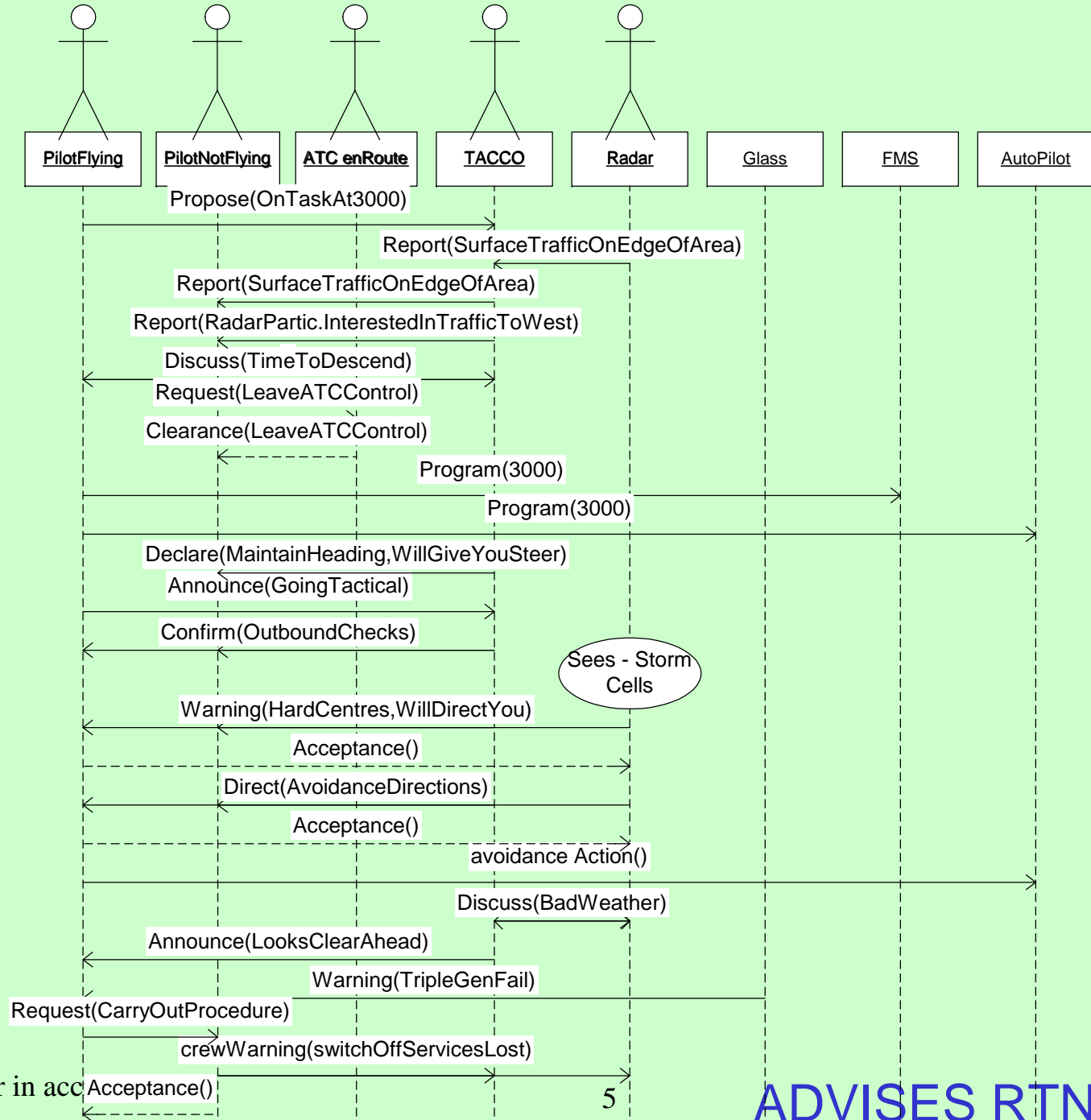
CHLOE

Cognitive Stage	Failure Guidewords
Perception/Evaluation	(Corruption) Error Failure/None
Goals (Triggering & Initiation)	(Corruption) Error Conflict Failure/None
Plans (Co-ordination)	(Corruption) Error Interrupted/Incomplete Failure/None
Action	(Corruption) Error Failure/None Interrupted/Incomplete Conflict

UML Sequence Diagram:

Lightning Strike Scenario

TIME



CHI SIG Human error in acc
incidents 29/4/04

ADVISES RTN

Current work

Combining THEA with barrier analysis

- humans as barriers components. S
 - and as sources of barrier erosion
- classifications of barrier systems
- Barrier systems implicit system representation in THEA analysis
- connection with other work at York on safety argument reuse.