Communications and Transport Systems Department of Science and Technology Linköping University

Fall 2021

Dr. Christiane Schmidt

## TNFL01 - flygtrafik och flygtransporter Homework Set 1, SL3, 2021

Solutions are due September 06, 2021, 12:00. Please put your name on all pages!

## Question 1 (Drone crashes - causes, lessons and courses of action):

At http://www.techrepublic.com/article/12-drone-disasters-that-show-why-the-faa-hates-drones/ 12 drone accidents are listed.

Your task is to choose one of these crashes and discuss the procedures, routines and technology of the UTM system, using the chosen crash as a starting point. Possible questions you could discuss:

How did the crash happen? Why did it happen? Which person/s (if any) acted incorrect? Which technology (if any) failed? How could the crash have been avoided? Which lessons can one learn from the crash? Which changes in routines, technology etc. resulted from the crash? Could the same typ of crash happen today?

You have to look for further necessary information. Please remember to be critical of your sources.

The assignment should be handled separately (that is, each person works on her/his own) and reported as a short memo, maximal 2 pages. No two persons in the class are allowed to chose the same drone crash, thus, your choice of crash must be approved by the supervisor. Please sign up here: https://docs.google.com/spreadsheets/d/1g-x\_mgr8wImeJHgbEOYFPcLBRNrrsGErJnUEDMKVS3g/edit?usp=sharing

The report should be both sent by email to christiane.schmidt@liu.se and uploaded to lisam no later than **September 06, 2021, 12:00**.

It should be noted that the memo will be sent to URKUND (http://www.urkund.com), a plagiarism checker to ensure original content.

The memos will be distributed to the rest of class and will be presented and discussed at the seminar on **September 10**. Each person will have 2 minutes to present her/his crash, which makes high demands on the students' ability to be well prepared and to convey the most important conclusions.

Until the day of the seminar all students are expected to read each others memos. Each student will be assigned one memo for which she/he is the opponent. This includes that students should critically question the memo, pose questions after the presentation, and produce viewpoints on the report and on the presentation. The opposition has at most 2 minutes. Assessment criteria

- You should comply with the assignment and all relevant questions should be discussed.
- Background facts should be correct; content has to be objective and relevant and a red thread should run through the high quality text.
- Good structure, layout and outline; the text should be easy to read and written in good, understandable English.
- Sources should be relevant and sources must be stated clearly.