TITLE	Wakuku's Mystery Adventure
TYPE	MISC
POINTS	500-700 pts
DESCRIPTION	Substitution problem with image and database OSINT
ANSWER FORMAT	BCCTF{?+?+?} The "+" sign is part of the flag
CORRECT ANSWER	BCCTF{Libya+Montgomery+Ulsan} Or BCCTF{libya+montgomerey+ulsan}
	Note: Players may add "county" or "city". If this happens and they ask about it, go ahead give this hint:  HINT: All answers are one word.

This problem comes with three files. Two images (copy of a postcard – front and back) and one text file (story text).

Story Text (separate file):

Subject: Analysis Request - Suspicious Evidence Acquired

Dear Team,

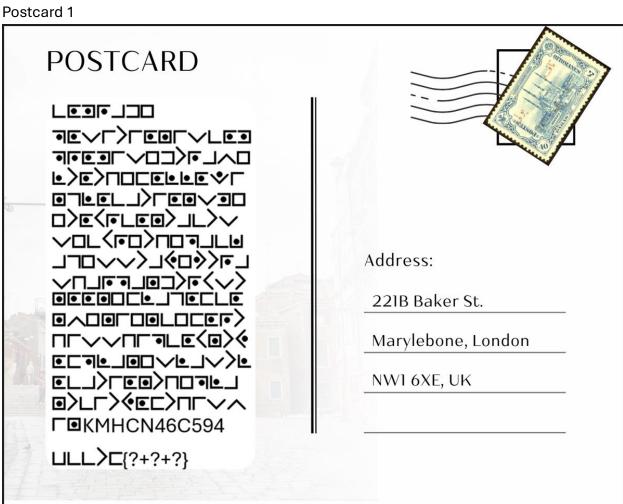
During a routine forensics sweep at a recent raid on a suspected cybercriminal hideout, we came across an item that appears to be an ordinary postcard. However, preliminary analysis suggests it may contain a hidden message. The card was found tucked away in a safe alongside encrypted drives, suggesting its potential significance.

Your task is to analyze this evidence and uncover any hidden information. We've included the scanned postcard. Time is critical—if this card holds the key to something bigger, we need answers fast.

Let us know your findings as soon as possible.

Best regards,

Detective Wakuku

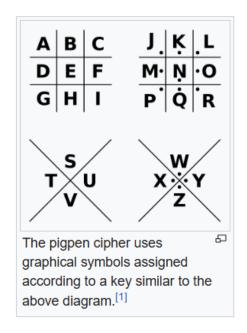


## Postcard 2

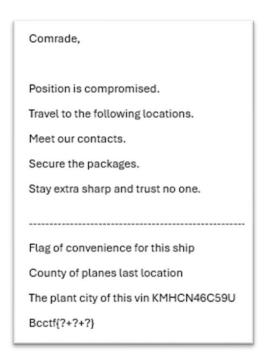


## Write Up

1. Postcard 1 contains something called a pigpen cipher. It is a pretty simple substitution cipher. There are many variations of the key but what I used here is the popular and simpler one. See below for the key.



2. This is the direct translation of Postcard 1



3. Postcard 2 is the second part of this problem. It shows images that you should use to get the answers.

BearcatCTF 2025 CTF Problem Mark Nudalo

- 4. For the ship problem, you used the IMO number to look it up on any maritime database. One example of such database is called <a href="https://www.marinetraffic.com/">https://www.marinetraffic.com/</a>. The answer should be Libya
- 5. The "airforce" image could be tricky. There are two database sites that contains an image of this plane. This is the correct one <a href="https://abpic.co.uk/pictures/code-number/13893">https://abpic.co.uk/pictures/code-number/13893</a> since it mentions where it is not currently. Which is the Air Force Museum in Dayton located within the Montgomery County.
- 6. The Korean image should say a lot about where this vehicle was made. Just use any VIN databases and it should say that that the plant city is Ulsan City.
- 7. The final flag should be

BCCTF{Libya+Montogmery+Ulsan}