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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/860,849	09/22/2015	Jean-Luc Derouineau	H0042583 (002.1449)	2145
89955	7590	10/31/2019	EXAMINER	
HONEYWELL/LKGLOBAL Patent Services 115 Tabor Road P.O.Box 377 MORRIS PLAINS, NJ 07950			HAILE, BENYAM	
			ART UNIT	PAPER NUMBER
			2686	
			NOTIFICATION DATE	DELIVERY MODE
			10/31/2019	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JEAN-LUC DEROUINEAU and MATEJ DUSIK<sup>1</sup>

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Appeal 2018-009199  
Application 14/860,849<sup>2</sup>  
Technology Center 2600

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Before ST. JOHN COURTENAY III, LARRY HUME, and  
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BENNETT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1, 4, 6–11, 13–17, 19, 20, 21, and 23, which are all of the pending claims. Claims 2, 3, 5, 12, 18, and 22 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> We use the word “Appellant” to refer to “Applicants” as defined in 37 C.F.R. § 1.42(a).

<sup>2</sup> Appellant’s Brief (“App. Br.”) identifies the real party in interest as Honeywell Int., Inc. App. Br. 2.

### CLAIMED SUBJECT MATTER

The claims are directed to “methods and systems for managing and presenting situational awareness information.” Spec. ¶ 2. Specifically, these methods and systems are provided for “displaying information on a display device of an aircraft as well as processing crowd sourced information from other aircraft, sensors and information systems in a ground server, and provid[ing] it back to aircraft via communication means.” Abstract.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of displaying information on a display device of an aircraft, comprising:

retrieving information from a situational awareness system about a current situation wherein the information is received from a plurality of inputs wherein a particular input comprises receiving the current situation that has been entered by a user wherein the information comprises consolidated situation awareness data which is generated by fusing data from sources and storing the data in a datastore for retrieval by the situational awareness system, the consolidated situation awareness data having a higher value than situation awareness data;

determining current situation display data to display based on a particular information about the current situation; and

graphically displaying, by one or more graphical representations, the particular information on the display to indicate the current situation display data wherein the situational awareness system is configured to determine:

in a first step which of a plurality of other aircrafts are within a current network,

in a second step of those within the current network which of the other aircrafts may gain a benefit from the current situation display data, and

in a third step to communicate selectively the situational awareness data to each aircraft deemed to benefit therefrom

wherein the particular information about the current situation has been entered by the user from the other aircrafts and

the current situation display data includes graphic widgets data which indicates a particular graphical representation of the current situation, the graphics widgets data can enable the display of the other aircrafts located ahead of a current flight path of the aircraft as a graphic on a map relative to locations of the other aircrafts which can be designated as a source of information by the other aircrafts from which to receive information or commence an exchange of information to the aircraft,

the graphically displaying further comprising:

displaying at least a selection button on the display to select, by the user, information indicating the current situation whereupon selection by the user of the selection button enables generating information indicating the current situation of the aircraft which corresponds to the selection button selected by the user provided on the user interface.

App. Br. 32–33 (Claims Appendix).

#### REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hanks et al.	US 2012/0304007 A1	Nov. 29, 2012
Kronfeld et al.	US 8,344,933 B1	Jan. 1, 2013
Sampigethaya	US 9,310,477 B1	Apr. 12, 2016

#### REJECTIONS

Claims 1, 4, 6–11, 13–17, 19, 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sampigethaya and Kronfeld. Final Act. 3.

Claims 21 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sampigethaya, Kronfeld and Hanks. Final Act. 11.

## ISSUES

*First Issue:* Has the Examiner erred in finding Sampigethaya and Kronfeld teach, suggest, or otherwise render obvious “receiving the current situation that has been entered by a user wherein the information comprises consolidated situation awareness data which is generated by fusing data sources,” as recited in claim 1?

*Second Issue:* Has the Examiner erred in finding Sampigethaya and Kronfeld teach, suggest, or otherwise render obvious “consolidated situation awareness data with a higher value than situation awareness data,” as recited in claim 1?

*Third Issue:* Has the Examiner erred in finding Sampigethaya and Kronfeld teach, suggest, or otherwise render obvious “displaying at least a selection button on the display to select, by the user, information indicating the current situation whereupon selection by the user of the selection button enables generating information indicating the current situation of the aircraft which corresponds to the selection button selected by the user provided on the user interface,” as recited in claim 1?

*Fourth Issue:* Has the Examiner erred in finding Sampigethaya and Kronfeld teach, suggest, or otherwise render obvious “wherein the particular information about the current situation has been entered by the user from the other aircrafts,” as recited in claim 11?

*Fifth Issue:* Has the Examiner erred in finding Sampigethaya, Kronfeld and Hanks teach, suggest, or otherwise render obvious “a data fusion module configured to: receive the information of the current situation; perform one or more machine learning applications on the information which has been received; and provide a semantic understanding

of the information of the current situation from the information received to increase an overall awareness of the current situation to a user,” as recited in independent claim 21?

*Sixth Issue:* Has the Examiner erred in finding the cited references teach the inter-aircraft communication recited in each of independent claims 11 and 21?

## ANALYSIS

### *First Issue*

In rejecting claim 1, the Examiner relies on Sampigethaya and Kronfeld. Relevant to this issue, the Examiner finds the limitation “receiving the current situation that has been entered by a user wherein the information comprises consolidated situation awareness data which is generated by fusing data sources,” is taught by Sampigethaya. Final Act. 3 (citing Sampigethaya col. 5, ll. 2–17; col. 6, ll. 22–29, 56–63; col. 7, ll. 17–26, 32–35, 49–55). Appellant argues the Examiner has erred because “Sampigethaya is only understood to receive radar data based on regions of interest (Column 5, lines 14–17) and fusing data in the received situational awareness information (Column 5, lines 5–7).” App. Br. 19.

We are not persuaded of Examiner error. Sampigethaya describes an air traffic management (“ATM”) system which receives situational awareness information associated with other aircraft in order to display a present location and flight path on an air traffic map in an aircraft. Sampigethaya col. 2, l. 58–col. 3, l. 2. Sampigethaya further teaches that “[s]ituation awareness information is shared among aircraft” (col. 4, ll. 36–37) and that the ATM system “generates and updates the dynamic map of air traffic by processing and fusing data in the received situational

awareness information with the data from additional databases.” We agree with the Examiner that this disclosure in Sampigethaya teaches or at least suggests the disputed limitation.

*Second Issue*

Claim 1 also recites the limitation “consolidated situation awareness data with a higher value than situation awareness data.” App. Br. 32 (Claims Appendix). The Examiner finds this limitation taught by Sampigethaya. Final Act. 3–4. More specifically, the Examiner finds that Sampigethaya teaches supplementing situation awareness data with information gathered from a plurality of sources. Final Act. 3–4 (citing Sampigethaya col. 5, ll. 2–18). The Examiner finds that because the supplemented situation awareness data includes more information about the current situation than the non-supplemented information, a person of ordinary skill in the art would have understood it to have a higher value than single-source data. Final Act. 4.

Appellant asserts Sampigethaya does not teach “the consolidated situation awareness data having a higher value” because “the consolidated situation awareness data [is not] compared to any received situation awareness data.” App. Br. 19.

We are not persuaded of Examiner error. Claim 1 does not recite or require a “comparison” as Appellant alleges. Rather, it only requires that the consolidated situation awareness data have a “higher value” than the non-consolidated situation awareness data. Appellant does not explain why the Examiner’s determination that the fused situation awareness data has a higher value is unsupported, and merely states that “[t]hese elements are missing from Sampigethaya.” App. Br. 19. This bare assertion is

insufficient to show Examiner error, and we are not persuaded by Appellant's arguments regarding this limitation.<sup>3</sup>

*Third Issue*

Claim 1 also recites the limitation:

displaying at least a selection button on the display to select, by the user, information indicating the current situation whereupon selection by the user of the selection button enables generating information indicating the current situation of the aircraft which corresponds to the selection button selected by the user provided on the user interface.

App. Br. 33 (Claims Appendix). The Examiner finds Sampigethaya teaches this limitation, except that it teaches a touchscreen input device generally, and does not does not teach a "selection button" as the specific input mechanism. Final Act. 4–5. The Examiner introduces Kronfeld to cure this deficiency, finding that it teaches a system that provides situation awareness information having selectable user interface elements. Final Act. 5 (citing Kronfeld col. 3, ll. 55–58; col. 6, ll. 10–32; col. 7, l. 62–col. 8 l. 6).

Appellant challenges the Examiner's findings:

Kronfeld fails to disclose displaying at least a selection button on the display to select, by the user, information indicating the current situation whereupon selection by the user of the selection button enables generating information indicating the current situation of the aircraft which corresponds to the selection button selected by the user provided on the user interface as recited in claim 1.

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<sup>3</sup> See *In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011) (“[W]e hold that the Board reasonably interpreted Rule 41.37 to require more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.”)

App. Br. 20.

We are not persuaded by Appellant’s arguments because Appellant does not address the specific findings made by the Examiner. Specifically, Appellant argues Kronfeld is deficient because the passage at column 6, lines 55–58 does not provide “any teaching of the claim features.” App. Br. 20–21. However, the Examiner does not cite this passage in Kronfeld in rejecting the claims. Rather, the Examiner cites other disclosure provided by Kronfeld.

We agree with the Examiner’s findings because Kronfeld teaches the use of selectable user interface elements which include buttons. *See* Kronfeld at col. 3, ll. 55–58. We further agree with the Examiner that the use of Kronfeld’s UI elements to select specific data corresponding to aircrafts or airborne systems teaches or at least suggests the disputed limitation “selection button selected by the user provided on the user interface.” Kronfeld col. 6, ll. 12–32. Accordingly, we are not persuaded the Examiner erred with respect to the argued limitation.

#### *Fourth Issue*

Both claim 1 and claim 11 recite the limitation “wherein the particular information about the current situation has been entered by the user from the other aircrafts.” App. Br. 35 (Claims Appendix). In rejecting claim 1, the Examiner relies on Sampigethaya as teaching this limitation. Final Act. 4 (citing Sampigethaya col. 6, ll. 22–29 and col. 7, ll. 49–55). Appellant argues “[t]he combination of Kronfeld and Sampigethaya fail to disclose that the information indicating the current situation has been entered by users of the other aircrafts on the aircraft display,” adding that [t]here is no selective sharing of current information between aircrafts.” App. Br. 22.

We are not persuaded by Appellant’s argument for two reasons. First, the claim does not recite the argued “selective sharing of current information between aircrafts.” (*Id.*) As such, Appellant’s argument is not commensurate with the scope of the claim. Second, Appellant does not address the specific findings made by the Examiner. In particular, Appellant does not provide any explanation or reasoning for why Sampigethya’s situational data, which is communicated among aircrafts, does not teach or at least suggest that information has been entered by “the user from the other aircrafts.”

Moreover, Appellant does not explain why the Examiner’s finding that Kronfeld’s data sharing and communicating threat assessment or forecast information with other aircraft teaches “information indicating the current situation has been entered by users of the other aircrafts” is in error. Kronfeld col. 7, ll. 62– col. 8, l. 6. Because the data taught by these references is information related to weather, flocks of birds, air traffic, locations of turbulence, etc. that is in the flight paths of the airborne objects, the data displayed is data on flight paths only and thus is selective. Sampigethaya Col. 11, ll. 4–6. Therefore, we are not persuaded by Appellant’s argument that the cited references fail to teach or suggest “wherein the particular information about the current situation has been entered by the user from the other aircrafts.”

*Fifth Issue*

Independent claim 21 recites:

a data fusion module configured to: receive the information of the current situation; perform one or more machine learning applications on the information which has been received; and provide a semantic understanding of the information of the

current situation from the information received to increase an overall awareness of the current situation to a user.

App. Br. 36 (Claims Appendix). The Examiner relies primarily on Hanks for this limitation, finding that Hanks teaches a machine learning system to correlate data between multiple aircraft and determine abnormal situations. Final Act. 13 (citing Hanks ¶¶ 64, 65).

Appellant argues the Examiner has erred because:

The Hanks reference is not related in any manner and teaches use of correlating data between multiple aircrafts to identify abnormal situations. There is no teaching to "perform one or more machine learning applications on the information which has been received; and provide a semantic understanding of the information of the current situation from the information received to increase an overall awareness of the current situation to a user" as required by the claim. The Kronfeld reference fails to show this feature and does not meet the claim limitations.

App. Br. 27–28. We disagree.

Hanks teaches the use of a CEP/machine learning system which is used on an aircraft network as a protection mechanism to ensure aircraft are not compromised. We agree with the Examiner that a person of ordinary skill in the art, possessing the teachings of Hanks, Sampigethaya, and Kronfeld, would have found it obvious to implement Hanks' machine learning on received information as taught by Sampigethaya and Kronfeld because doing so would have allowed for an improved understanding of data received from multiple aircraft. *See* Ans. 13.

#### *Sixth Issue*

Appellant also contends that various limitations recited in claims 11 and 21 are not met because "there is no mention of a network communication of one aircraft to another and to another." App. Br. 27. We

are not persuaded by Appellant’s argument because Sampigethya’s airline fleet network, enabling communication between multiple airborne objects, teaches or at least suggests networked communications between aircraft. Sampigethaya, Col. 4, ll. 32–36.

*Remaining Claims*

For the reasons explained above, Appellant’s arguments do not persuade us the Examiner erred in rejecting independent claims 1, 11, and 21. Appellant does not present any arguments for any dependent claim, the dependent claims each fall along with their respective independent claims.

CONCLUSION

The Examiner did not err in rejecting claims 1, 4, 6–11, 13–17, 19–21, and 23 under 35 U.S.C. § 103.

DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 4, 6–11, 13–17, 19, 20	103	Sampithegaya, Kronfeld	1, 4, 6–11, 13–17, 19, 20	
21, 23	103	Sampithegaya, Kronfeld, Hanks	21, 23	
<b>Overall Outcome</b>			1, 4, 6–11, 13–17, 19–21, 23	

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FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED