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UNIVERSAL AIRCRAFT PASSENGER SEAT PLATFORM AND SYSTEM, AND METHOD OF INSTALLING AN AIRCRAFT PASSENGER SEAT SYSTEM

Abstract

An aircraft passenger seat platform having a main body, and a plurality of body mounts arranged at a bottom and/or side of the main body, wherein at least some of the plurality of body mounts are adjustable in at least one direction along the bottom and/or side of the main body. The platform comprises a seat receptacle arranged at a top of the main body and configured to receive and hold one or more passenger seatings and/or one or more passenger seat backrests. Also an aircraft passenger seat system, an aircraft having such platform and/or system, as well as a method of installing an aircraft passenger seat system.

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Background/Summary

CROSS-REFERENCES TO RELATED APPLICATIONS

[0001] This application claims the benefit of European Patent Application Number 24157692.5 filed on Feb. 14, 2024, the entire disclosure of which is incorporated herein by way of reference. FIELD OF THE INVENTION

[0002] The present disclosure generally relates to a universal passenger seat platform for an aircraft, an aircraft passenger seat system and method of installing the same in an aircraft. Particularly, the present disclosure relates to universal passenger seat platform mountable to a floor and/or side of an aircraft and having a receptacle at a top to receive and hold one or more passenger seatings and/or back rests.

BACKGROUND OF THE INVENTION

[0003] A conventional aircraft passenger seat comprises a load bearing structure adapted to a particular aircraft type, particularly adapted to the location of seat rails in the aircraft type onto/into which the load bearing structure is mounted.

[0004] Moreover, aircraft operators, such as airlines, usually prefer to have dedicated seats. Each of these seats has to be certified, often particularly with respect to an aircraft type, which requires a great effort before such dedicated seats can be installed in a particular aircraft.

[0005] Thus, a large amount of seats has to be produced, certified and stored, in order to cover all combinations of aircraft types and dedicated seats. This problem is even increased in view of different seats for different cabin classes, such as economy class, business class, first class, or the like.

SUMMARY OF THE INVENTION

[0006] It is therefore an object of the present disclosure to overcome the above problems.

[0007] This object may be solved by the present invention as described in one or more embodiments herein.

[0008] According to a first aspect to better understand the present disclosure, an aircraft passenger seat platform comprises a main body, a plurality of body mounts arranged at a bottom and/or side of the main body, a seat receptacle arranged at a top of the main body and configured to receive and hold one or more passenger seatings and/or one or more passenger seat backrests, and an electrical interface. At least some of the plurality of body mounts are adjustable in at least one direction along the bottom and/or side of the main body.

[0009] The aircraft passenger seat platform can be installed in any type of aircraft, i.e., independent of the location and relative position of the seat rails in a cabin floor and/or the seat rails at a side of the cabin, such as a lateral side and/or sidewall/lining of the cabin. Thus, there is no requirement for a different type of seat for each seat rail configuration. Moreover, the seat platform can be considered as a universal seat platform allowing, on the one hand, installation of the platform in any type of aircraft, and on the other hand, installation of any type of seat on top of the platform. This significantly reduces the number of parts to be certified for the aircrafts, particularly down to one part, namely the platform.

[0010] As a mere example, the aircraft passenger seat platform can have a height corresponding to a standard height of the bottom of a seating. A seating refers to a seat cushion (a foam or the like including the actual seat surface), and any structural parts to hold and form the seating. Since aircraft seats are usually designed for an average sized person, the height or horizontal level (or range of heights) of the seating above the cabin floor is standardized. The aircraft passenger seat platform can, likewise, be standardized by having the top of its main body at a particular height or horizontal level above the cabin floor.

[0011] Furthermore, during final assembly of an aircraft the aircraft passenger seat platform can

already be installed in the passenger cabin, while the seating(s) and/or seat backrest(s) can be provided later, e.g., shortly before delivery to the aircraft operator. This facilitates standardizing assembly of an aircraft, for instance, independent of the aircraft operator.

[0012] In an implementation variant, the seat receptacle can comprise a plurality of seat receptacles arranged in a grid pattern at the top of the main body. The plurality of seat receptacles may be provided in a manner that different types of seats (seating and seat backrest) can be mounted on the main body. As a mere example, a number of the seat receptacles may be larger than the number of seat receptacles required to mount one type of seat. In other words, the seat receptacles arranged in a grid pattern allow mounting a passenger seat of any type and size in a secure manner to a subgroup of the seat receptacles. The passenger seats are configured to have holders or seat mounts in a pattern corresponding to the subgroup of the seat receptacles, i.e., any spatial configuration of holders or seat mounts at a passenger seat matches with the location of some of the seat receptacles. [0013] Moreover, such number of seat receptacles further allows positioning the passenger seat at different locations on top of the platform, particularly at different locations in a (substantially) horizontal plane at the top of main body. Thus, a spatial independence of the passenger seat can be achieved by the number of seat receptacles, particularly with an increasing number of seat receptacles.

[0014] In another implementation variant, the seat receptacle can comprise one or more seat mounting rails extending along a transverse direction or longitudinal direction of a plane defined by the top of the main body. Thus, a passenger seat can be mounted or connected to the main body at the one or more seat mounting rails. Due to the extension of each mounting rail, any type of passenger seat can be installed, i.e., any spatial configuration of holders or seat mounts at a passenger seat fits into the seat mounting rails. As a mere example, due to the longitudinal extension of the seat mounting rail, a distance between seat mounts of the passenger seat in this longitudinal direction of the seat mounting rail is irrelevant, as any seat mounts of any distance will be covered by the seat mounting rail. Likewise, the passenger seat can be adjusted spatially along the seat mounting rails.

[0015] In case of a plurality of seat mounting rails, a distance between two seat mounting rails (provided, for example, parallel to one another) can be chosen to correspond to a distance of holders or seat mounts of a particular passenger seat. In order to allow any type of passenger seat to be installed, more than two seat mounting rails can be provided on the main body, so that for any distance of holders or seat mounts (of different types of passenger seats) there is at least one pair of seat mounting rails in the main body.

[0016] In any case, a high flexibility of installing a passenger seat of any type on the platform is provided. In addition, in case of seat mounting rails, the position of the passenger seat can be adjusted along the longitudinal direction of the seat mounting rails.

[0017] In a further implementation variant, the electrical interface can be provided at the top of the main body. This facilitates connecting the passenger seat to the electric interface, as it is not on a floor level as in conventional aircrafts, but at the level of the seating of the passenger seat.

Alternatively or additionally, the electrical interface can be provided at the side of the main body close to or facing a (lateral) side of the aircraft cabin, such as a sidewall or lining.

[0018] As a mere example, the electric interface can include an electric power supply (e.g., for IFE, massage, heating devices and the like in the seat) as well as a data connection for any entertainment system, lighting, and the like provided with or at the passenger seat.

[0019] In yet a further implementation variant, the main body can have a box-like shape, with an opening at one lateral side. Specifically, the opening can be arranged, when the passenger seat platform is installed in an aircraft, to face rearwards. This allows a passenger sitting in a seat arranged behind the passenger seat platform to use the space inside the box-shaped main body, for example, as a foot resting space or to securely store hand luggage.

[0020] According to a second aspect to better understand the present disclosure, an aircraft

passenger seat system comprises one or more aircraft passenger seat platforms of the first aspect or one or more of its variants.

[0021] The aircraft further comprises one or more passenger seatings mounted to a seat receptacle of the aircraft passenger seat platform, and one or more passenger seat backrests mounted to a seat receptacle of the aircraft passenger seat platform. It is to be understood that the one or more passenger seat backrests correspond in number to the one or more passenger seatings.

[0022] Alternatively or additionally, instead of separate seating(s) and seat backrest(s) one or more complete passenger seats, each having a seating and a seat backrest, can be mounted to a seat receptacle of the aircraft passenger seat platform. Thus, the passenger seat can form a unit consisting of at least a seating and a seat backrest.

[0023] According to a third aspect to better understand the present disclosure, a method of installing an aircraft passenger seat system in an aircraft comprises the following steps. Firstly, one or more aircraft passenger seat platforms of the first aspect or one or more of its variants is/are provided. Thereafter, the plurality of body mounts of the one or more aircraft passenger seat platforms are adjusted to correspond to a plurality of seat rails of the aircraft. As a mere example, the plurality of body mounts can be adjusted to have a particular distance corresponding to the distance between two seat rails. The seat rails can be arranged/positioned at a floor and/or a lateral side of the passenger cabin.

[0024] Then, the one or more aircraft passenger seat platforms are mounted to the plurality of seat rails, and further one or more passenger seats are mounted to the seat receptacles at the top of the main body of the aircraft passenger seat platform.

[0025] This allows a separation of the installation of the platform and the passenger seat, including a timely separation as well as a spatial separation. For instance, while the platform can be installed in the aircraft during final assembly of the aircraft, the actual passenger seat(s) can be provided later and/or at a different assembling location.

[0026] In addition, separating the installation of the platform from the installation of the passenger seat allows lighter components to be installed compared to conventional passenger seats including their load-bearing structures. As a mere example, the individual components of the aircraft passenger seat system can be designed to have a weight below a maximum allowed weight for workers to carry, such as 25 kg or 30 kg.

[0027] In an implementation variant, the mounting of one or more passenger seats can comprise mounting one or more passenger seatings to the seat receptacles, and mounting one or more passenger seat backrests to the seat receptacles. Thus, while the passenger seat can be provided as a single unit and be mounted to the platform as a single unit, the seating and seat backrest can also be separate components, which facilitates handling and installation.

[0028] In another implementation variant, the method can further comprise dismounting the one or more passenger seats from the aircraft passenger seat platform, wherein the one or more passenger seats are of a first type. Thereafter, the method can further comprise mounting one or more passenger seats of a second type to the seat receptacles, wherein the second type is different from the first type. Thus, the type of passenger seat can be changed in an easy and fast manner. As a mere example, a certain type of passenger seat can be stored in a cargo area of the aircraft to replace it with another type, or can be kept at an airport to be installed in another aircraft (of same or different type, brand or operator).

[0029] In an implementation variant, the first type of passenger seat is an economy class passenger seat, and the second type is a business class passenger seat or a stretcher for transporting a lying person. The latter may including installation on one or more platforms. Thus, on a regular flight, the type of passenger seat can be changed during turnover time by simply removing the passenger seat from the platform and storing of the same in a cargo area of the aircraft, while the second type of passenger seat can be brought from the cargo area of the aircraft and be installed in the passenger cabin.

[0030] Alternatively or additionally, instead of installing a passenger seat or stretcher, one or more platforms can be used to install a cargo box or other transport device in the passenger cabin. [0031] In yet another implementation variant, the method can further comprise connecting an electric and/or electronic line of the passenger seat to the electric interface of the aircraft passenger seat platform. For example, the electric interface can be provided at the top of the main body of the platform. The electric connection can be established in an easy manner, since the electric interface is adjacent to the bottom of the passenger seat and at a vertical level (height) that is easy to reach for any worker.

[0032] In an implementation variant, the connecting to the electrical interface can include connecting an electric and/or electronic line arranged at a location of the passenger seat matching a location of the electric interface of the aircraft passenger seat platform. In other words, when installing the passenger seat, the two connecting (electrical/electronic) elements at the seat and the platform are arranged to be connected while mounting the seat onto the platform. This allows a "plug & play" solutions. As a mere example, the seat receptacles at the platform and the corresponding holder or seat mount can be equipped with plug and socket, in order to electrically connect the seat when mounting the seat to the receptacle.

[0033] According to a fourth aspect to better understand the present disclosure, an aircraft comprises a plurality of aircraft passenger seat platforms of the first aspect or one or more of its variants, or a plurality of aircraft passenger seat systems of the second aspect.

[0034] The present disclosure is not restricted to the aspects and variants in the described form and order. Specifically, the description of aspects and variants is not to be understood as a specific limiting grouping of features. It is to be understood that the present disclosure also covers combinations of the described aspects and variants. Thus, each variant or optional feature can be combined with any other aspect, variant, optional feature or even combinations thereof.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0035] In the following, the present disclosure will further be described with reference to exemplary implementations illustrated in the figures, in which:

[0036] FIG. **1** schematically illustrates a front view of an aircraft passenger seat system with a first seat configuration;

[0037] FIG. **2** schematically illustrates a front view of an aircraft passenger seat system with a second seat configuration;

[0038] FIG. **3** schematically illustrates a top view of an exemplary aircraft passenger seat platform; [0039] FIG. **4** schematically illustrates an aircraft comprising seat rails and a plurality of aircraft

passenger seat platforms;

[0040] FIG. **5** schematically illustrates an exemplary aircraft passenger seat systems with a first platform configuration;

[0041] FIG. **6** schematically illustrates an exemplary aircraft passenger seat systems with a second platform configuration; and

[0042] FIG. **7** schematically illustrates a flow diagram of a method of installing an aircraft passenger seat system.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0043] In the following description, for purposes of explanation and not limitation, specific details are set forth in order to provide a thorough understanding of the present disclosure. It will be apparent to one skilled in the art that the present disclosure may be practiced in other implementations that depart from these specific details.

[0044] FIG. 1 schematically illustrates a front view of an aircraft passenger seat system 100 with a

first seat configuration. The aircraft passenger seat system **100** comprises one or more aircraft passenger seat platforms **110** and one or more passenger seats **120** mounted to one of the aircraft passenger seat platforms **110**.

[0045] The aircraft passenger seat platform **110** comprises a main body **111** having a plurality of body mounts **113** arranged at a bottom thereof. Each body mount **113** is configured to be mounted to a seat rail **101** or similar structure allowing a mechanical connection to a body mount **113**. As a mere example, a plurality of seat rails **101** can be provided in a passenger cabin floor and extend in a longitudinal direction of the passenger cabin.

[0046] FIG. 4 exemplarily illustrates an aircraft 1 having a plurality of seat rails extending in a longitudinal direction of the aircraft 1. FIG. 4 shows four seat rails in total, for example, one pair of seat rails arranged on each side of a center aisle of the aircraft 1. As a mere example, six platforms 110 are illustrated in the aircraft 1 of FIG. 4, i.e., three platforms 110 on each side of the aircraft 1. While the remaining part of the aircraft 1 is not (yet) equipped with seat platforms 110. [0047] Turning back to FIG. 1, at least some of the body mounts 113 are adjustable in at least one direction along the bottom of the main body 111. This is schematically illustrated by double arrows in the transverse direction (width direction of the main bodies 111). Thus, the platform 110 can be mounted to seat rails 101 of any distance, i.e., to seat rails 101 provided in any type of aircraft 1. For instance, the distance in transverse direction between two seat rails 101 can vary depending on the type of aircraft 1. The platform 110 can be installed in any type of aircraft 1, due to the adjustability of the body mounts 113. Thus, the platform 110 forms a universal seat base applicable to all types of aircrafts 1.

[0048] Moreover, the aircraft passenger seat platform **110** as illustrated exemplarily comprises two main bodies **111***a*, **111***b* arranged adjacent to one another in a transverse direction of the aircraft **1**, i.e., in a direction orthogonal to the longitudinal direction of the seat rails **101**. The platform **110** can comprise more or less main bodies **111**, depending on the required width of the platform **110**, for example, depending on the required number of passenger seats **120** to be mounted. [0049] It is to be understood that the number of seat rails **101** and body mounts **113** can be more or less per main body **111** than illustrated. Specifically, if only one main body **111** is installed, at least two body mounts 113 mounted to at least two seat rails 101 allow a statically secure mounting of the platform **110**. If two adjacent main bodies **111***a*, **111***b* are provided, each main body **111** can be mounted to a single seat rail **101**, while additional stability can be achieved by connecting the two main bodies 111 to one another, for example, at lateral sides facing one another. It is to be understood that the gap illustrated between the main bodies **111** is for illustrative purposes only. [0050] Furthermore, according to an additional or alternative variant illustrated in FIG. 2 (not in FIG. **1** for sale of clarity), all or some of the body mounts **114** can be arranged in a lateral region of the platform **110**, where the platform **110** can be mounted to corresponding seat rails **102** provided in a sidewall of the aircraft cabin. It is to be understood that the body mounts 114 at the side of the main body **111** are likewise adjustable in at least one direction along the side of the main body **111**. For instance, the body mounts **114** may be adjustable/movable in the vertical direction (height direction of the main bodies 111). Thus, the platform 110 can be mounted to seat rails 101, 102 of any distance, i.e., to seat rails **101**, **102** provided in any type of aircraft **1**. For instance, the distance in vertical direction between two seat rails **102** can vary depending on the type of aircraft **1**. The platform **110** can be installed in any type of aircraft **1**, due to the adjustability of the body mounts **114**. Thus, the platform **110** still forms a universal seat base applicable to all types of aircrafts **1**. [0051] The aircraft passenger seat platform **110** further comprises an electrical interface **115**. For instance, one electrical interface **115***a*, **115***b* can be provided with each main body **111**. The electrical interface 115 allows electric power supply as well as a data connection with the general power and data network (not illustrated) of the aircraft 1. The electrical interface 115 can be provided in a top region of the main body **111**, so that it is reachable in an easy manner after mounting the main body **111** to the seat rail(s) **101**, for example, when installing the passenger

seat(s) 120.

[0052] Alternatively, the electrical interface **115***a*, **115***b* can be provided at or with a seat receptacle **116**, **117** (not illustrated, but see FIG. 3). This allows connecting the seat with the electrical interface **115***a*, **115***b* at the same time when mounting the seat **120** to the platform **110** in a plugand-play fashion. As a mere example, a holder or seat mount of the seat **120** can include an electrical plug or socket matching a socket or plug forming the electrical interface **115***a*, **115***b*. [0053] FIG. **3** schematically illustrates a top view of an exemplary aircraft passenger seat platform **110**. As can be derived from this drawing, the aircraft passenger seat platform **110** comprises a seat receptacle **116**, **117** arranged at a top (region) of the main body **111**. Each seat receptacle **116**, **117** is configured to receive and hold one or more passenger seatings **121** (FIG. **1**) and/or one or more passenger seat backrests **122** (also FIG. **1**).

[0054] FIG. **3** schematically illustrates two exemplary types of seat receptacles. To the left in FIG. **3**, the main body **111***a* comprises one or more seat mounting rails, as seat receptacles **117**, extending along a transverse direction of a plane defined by the top of the main body **111**. It is to be understood that the one or more seat mounting rails **117** can also extend along a longitudinal direction of the plane defined by the top of the main body **111**, and/or that seat mounting rails **117** can be provided that extend in both, transverse and longitudinal direction, and/or that seat mounting rails **117** can be provided that extend diagonally to the transverse direction (not illustrated). [0055] To the right in FIG. **3** the main body **111***b* comprises a plurality of seat receptacles **116** arranged in a grid pattern at the top of the main body **111**. The grid pattern allows receiving holders or seat mounts (not illustrated) provided at a passenger seat **120** in a grid that matches the position of at least some of the seat receptacles **116**. Thus, not all seat receptacles **116** may be used when mounting the passenger seat **120**, but all seat receptacles **116** allow mounting any type of passenger seat **120** (i.e., allowing mounting all variants of locations/grids of holders or seat mounts of all types of passenger seats **120**).

[0056] It is to be understood that the locations of seat receptacles **116**, **117** as illustrated in FIG. **3** are exemplary and for illustrative purposes only. Thus, seat receptacles **116**, **117** can be provided anywhere at the top of the main body **111**, and/or can also be provided at lateral sides of the main body **111**.

[0057] Furthermore, the platform **110** can be equipped only with seat mounting rails **117** or only with point-like seat receptacles **116**. Likewise, all platforms **110** in an aircraft **1** can be equipped with only seat mounting rails **117** or seat receptacles **116**. Alternatively, depending on the required flexibility, a mix of seat mounting rails **117** and seat receptacles **116** can be provided throughout an aircraft **1** or even within one platform **110**. It is also possible to provide seat mounting rails **117** and seat receptacles **116** on one (single) main body **111**, to increase flexibility and adaptability to any type of passenger seat **120**.

[0058] Turning back to FIG. 1, the aircraft passenger seat system 100 with the aircraft passenger seat platform 110 further comprises two seatings 121 and two seat backrests 122 mounted to a seat receptacle 116, 117 of the aircraft passenger seat platform 110. The actual holders or seat mounts and seat receptacles 116, 117 are not illustrated in FIG. 1 for sake of clarity. It is to be understood that one seating 121a and one seat backrest 122a form a passenger seat 120. Such passenger seat 120 can be mounted to the top of the main body 111 as a single unit. Alternatively, the seating 121 and the seat backrest 122 are mounted individually to the main body 111 (i.e., to the platform 110). [0059] FIG. 2 schematically illustrates a front view of an aircraft passenger seat system 100 with a second seat configuration. As can be derived from a comparison of FIGS. 1 and 2, the passenger seats 120a, 120b (i.e., seating 121a with backrest 122a and seating 121b with backrest 122b) in the configuration of FIG. 2 are of larger width than those of the configuration of FIG. 1. Thus, the passenger seats 120a, 120b are of different types, such as a first type and a second type. Such first type can be a business class passenger seat or a first class passenger seat.

[0060] FIGS. **5** and **6** schematically illustrate exemplary aircraft passenger seat systems **100** with different platform configurations, and with different seat configurations compared to FIGS. **1** and **2**. Specifically, the platform **110** of FIG. **5** is equipped with three passenger seats **120***a*, **120***b*, **120***c* (e.g., each consisting of a seating **121***a*,*b*,*c* and a backrest **122***a*,*b*,*c*). As can be derived from a comparison of FIG. **5** with FIGS. **1** and **2** a middle passenger seat **120***b* can be mounted to two adjacent main bodies **111***a*, **111***b*. Thus, the middle passenger seat **120***b* can be mounted to seat receptacles **116**, **117** provided on the right main body **111***b*. Therefore, the platform **110** is universal also with respect to the number of passenger seats **120** to be mounted thereto.

[0061] FIG. **6** schematically illustrates a similar aircraft passenger seat system **100** as in FIG. **5**, particularly a system **100** having the same seat configuration as in FIG. **5**. However, while the left main body **111***a* of FIG. **5** is configured to fit to the right-hand side of the aircraft **1**, it is the right main body **111***b* of FIG. **6** that is configured to fit to the left-hand side of the aircraft **1**. Specifically, due to the round cross-sectional shape of the aircraft **1**, in a region where a cabin floor intersects with a sidewall of the fuselage of the aircraft **1** the platform **110** can be adapted to the shape of the floor and sidewall. As is well known in the art, in this region a so-called dado panel will be arranged, to which the corresponding (adjacent) main body **111** can be adapted, particularly in its cross-sectional shape.

[0062] According to another option, if seat rails **102** are provided at the sidewall of the aircraft **1**, the main body **111** adapted to the side or dado panel can be equipped with (adjustable) holders or seat mounts **114** allowing mounting of the platform **110** to the lateral seat rails **102**.

[0063] Nevertheless, the number of different types (or shapes) of main bodies **111** can be kept to a minimum. As can be derived from FIGS. **1** to **6**, only two different types of main bodies **111** are necessary for the aircraft passenger seat system **100**. It is further to be understood that the above-described adaptation of one of the main bodies **111** to a dado panel region can be omitted and only one (single) type of main body **111** is required for all aircraft passenger seat systems **100**. [0064] FIG. **6** schematically illustrates another exemplary feature of the platform **110**, which is not illustrated in FIGS. **1** to **5** for clarity reasons. Specifically, each platform **110**, particularly main body **111**, can comprise an opening **112**. When the platform **110** is installed in the aircraft **1**, such opening **112** can face rearwards in the longitudinal direction of the aircraft **1**. Thus, the interior space in the main body **111** can be used by a passenger sitting behind the main body **111**, such as for storage of hand luggage or as a foot rest place.

[0065] FIG. **7** schematically illustrates a flow diagram of a method of installing an aircraft passenger seat system **100**, particularly in an aircraft **1**. In a first step **305**, one or more aircraft passenger seat platforms **110** are provided. These platforms **110** can be any of those illustrated and described with respect to FIGS. **1** to **6**.

[0066] In step **310** the plurality of body mounts **113**, **114** of the provided aircraft passenger seat platforms **110** are adjusted. Specifically, a position/location of each of the body mounts **113**, **114** of the platform **110** is adjusted to correspond to one or more seat rails **101**, **102**. Thus, each body mount **113**, **114** can be placed on/in a seat rail **101**, **102**, and in step **315**, the body mounts **113** can be mounted to the seat rail(s) **101**, **102**.

[0067] Thereafter, in step **320**, one or more passenger seats **120** are mounted to the seat receptacles **116**, **117** at the top of the main body/bodies **111** of the aircraft passenger seat platform **110**. This mounting step **320** can be performed at a different time and/or location compared to the mounting step **315**. Thus, mounting of the platform **110** can be independent of the mounting of the passenger seat **120**.

[0068] While the passenger seat(s) **120** can be mounted as a single unit to the platform **110**, seating(s) **121** and seat backrest(s) **122** can be mounted individually in respective mounting step **321** and **322**.

[0069] As a mere example, a passenger seat 120 may require replacement, for example, due to wear

and/or due to a different cabin configuration. Thus, in step **325** the one or more passenger seats **120** (of a first type) can be dismounted from the aircraft passenger seat platform **110**.

[0070] The method can then proceed back to step **320**, where one or more passenger seats **120** are mounted to the seat receptacles **116**, **117** of the platform **110**, wherein the now mounted passenger seats **120** are of a second type being different from the first type. For instance, passenger seats **120** can be changed from an economy class seat (FIG. **1**) to a business class seat (FIG. **2**). Likewise, the number of passenger seats **120** can be changed by dismounting (step **325**) a first number of passenger seats **120** from a platform **110** and mounting (step **320**) a second (different) number of passenger seats **120** to this platform **110**.

[0071] It is believed that the advantages of the technique presented herein will be fully understood from the foregoing description, and it will be apparent that various changes may be made in the form, constructions and arrangement of the exemplary aspects thereof without departing from the scope of the disclosure or without sacrificing all of its advantageous effects. Because the technique presented herein can be varied in many ways, it will be recognized that the disclosure should be limited only by the scope of the claims that follow.

[0072] While at least one exemplary embodiment of the present invention(s) is disclosed herein, it should be understood that modifications, substitutions and alternatives may be apparent to one of ordinary skill in the art and can be made without departing from the scope of this disclosure. This disclosure is intended to cover any adaptations or variations of the exemplary embodiment(s). In addition, in this disclosure, the terms "comprise" or "comprising" do not exclude other elements or steps, the terms "a" or "one" do not exclude a plural number, and the term "or" means either or both. Furthermore, characteristics or steps which have been described may also be used in combination with other characteristics or steps and in any order unless the disclosure or context suggests otherwise. This disclosure hereby incorporates by reference the complete disclosure of any patent or application from which it claims benefit or priority.

Claims

- 1. An aircraft passenger seat platform, comprising: a main body; a plurality of body mounts arranged at a bottom, or side, or both of the main body; a seat receptacle arranged at a top of the main body and configured to receive and hold one or more passenger seatings, or one or more passenger seat backrests, or both; and an electrical interface, wherein at least some of the plurality of body mounts are configured to adjust in at least one direction along the bottom, or the side, or both of the main body.
- **2**. The aircraft passenger seat platform of claim 1, wherein the seat receptacle comprises a plurality of seat receptacles arranged in a grid pattern at the top of the main body.
- **3**. The aircraft passenger seat platform of claim 1, wherein the seat receptacle comprises one or more seat mounting rails extending along a transverse direction or longitudinal direction of a plane defined by the top of the main body.
- **4.** An aircraft passenger seat system, comprising: one or more aircraft passenger seat platforms according to claim 1; one or more passenger seatings mounted to a seat receptacle of the one or more aircraft passenger seat platforms; and one or more passenger seat backrests corresponding to the one or more passenger seatings and mounted to a seat receptacle of the aircraft passenger seat platform.
- **5.** A method of installing an aircraft passenger seat system, comprising: providing one or more aircraft passenger seat platforms according to claim 1; adjusting the plurality of body mounts of the one or more aircraft passenger seat platforms to correspond to a plurality of seat rails; mounting the one or more aircraft passenger seat platforms to the plurality of seat rails; and mounting one or more passenger seats to the seat receptacles at the top of the main body of the aircraft passenger seat platform.

- **6.** The method of claim 5, wherein mounting one or more passenger seats comprises mounting one or more passenger seatings to the seat receptacles, and mounting one or more passenger seat backrests to the seat receptacles.
- 7. The method of claim 5, further comprising: dismounting the one or more passenger seats from the aircraft passenger seat platform, wherein the one or more passenger seats are of a first type; and mounting one or more passenger seats of a second type to the seat receptacles, wherein the second type is different from the first type.
- **8.** The method of claim 7, wherein the first type is an economy class passenger seat, and the second type is a business class passenger seat or a stretcher for transporting a lying person.
- **9**. An aircraft, comprising: a plurality of aircraft passenger seat platforms according to claim 1.
- **10**. The aircraft of claim 9, wherein the main body of at least one of the plurality of aircraft passenger seat platforms has a box shape with an opening facing rearward in a longitudinal direction of the aircraft.