unit which may cause difficulties in integrating such a unit into an aircraft cabin layout. The partition system may also be difficult for crew to use.

It is also known to provide a lavatory unit of a relatively conventional size, but with the toilet and other internal furniture arranged in a manner that seeks to improve the accessibility by a PRM. However, such arrangements tend to be impractical and undesirable for PRMs because the useable space still tends to be very limited.

EP 1,209,078 discloses a box-shaped lavatory body including a storage module that can be pulled out of and stowed back into the body. Said storage module may be a closet for storing the coats and jackets of passengers. In use, the closet is pulled out of the lavatory body expanding the lavatory unit. The additional space inside the lavatory body vacated by the storage module when pulled out makes it more comfortable for a user to change their clothes within the lavatory body.

The present invention seeks to mitigate the above-mentioned problems. Alternatively or additionally, the present invention seeks to provide an improved aircraft lavatory unit, in particular a PRM-accessible lavatory unit.

Summary of the Invention

In a first aspect of the present invention, there is provided a lavatory unit for an aircraft cabin, the lavatory unit comprising a perimeter wall that separates an internal space of the unit from space external to the unit, and a door assembly. The lavatory unit may be configurable between an able-bodied configuration and a PRM-accessible configuration. It may be that in the able-bodied configuration the lavatory unit has a first internal floor space and/or there is a cabin floor space external to the lavatory unit. It may be that the lavatory unit is expandable into the PRM-accessible configuration in which the lavatory unit is expanded to have a second internal floor space. The second internal floor space may encompass a region of the cabin floor space. The perimeter wall comprises a moveable wall assembly; wherein in the able-bodied configuration the moveable wall assembly is in a retracted configuration, wherein the moveable wall assembly is moveable into an expanded configuration to expand the lavatory unit into the PRM-accessible configuration; and wherein in the able-bodied configuration the door assembly is operable to an open position in which an able-bodied user can access the first internal floor space via a first door opening in the perimeter wall, the first door opening having a first effective

width; and wherein in the PRM-accessible configuration the door assembly is operable to an open position in which a PRM can access the internal floor space via a second door opening in the perimeter wall, the second door opening having a second effective width; and.wherein the second effective width is greater than the first effective width.

Thus, lavatory units in accordance with the present invention can be reconfigured to increase the internal floor space by encompassing additional cabin space and thereby enable access by a PRM but otherwise occupy a smaller amount of space within the cabin when in the able-bodied configuration (which may be the configuration used the majority of the time).

In the able-bodied configuration the lavatory unit is suitable for use, as a lavatory unit, by an able-bodied passenger. For example, in the able-bodied configuration, the size and layout of the unit is such that a toilet in the lavatory unit is

receive the backs of one or more seats in the row of seats. The lavatory unit may be located adjacent the cabin wall. The lavatory unit may be located between a row of seats and an aircraft door (in a direction parallel to the longitudinal axis of the aircraft). A second lavatory unit (a lavatory unit in accordance with the present invention or otherwise) may be located opposite the lavatory unit of the present invention, for example on the other side of the centreline of the aircraft. The lavatory unit, for example the aft or forward side and/or the door assembly, may be located immediately adjacent an egress pathway associated with an aircraft door. The egress pathway may be a portion of cabin floor space that must remain unobstructed during taxiing, take-off and landing for safety reasons. The lavatory unit may be located forward of a galley area, for example on the opposite side of the egress pathway to the galley area.

In the case that the aircraft cabin comprises a row of seats, an aircraft door, and an egress pathway associated with the aircraft door, it may be that the lavatory unit is located aft of the row of seats and immediately adjacent to the egress pathway.

In another aspect of the invention there is provided a method of reconfiguring an aircraft lavatory unit to enable access by a PRM. The method may comprise expanding the lavatory unit from an able-bodied configuration to a PRM-accessible configuration, such that cabin floor space that was located outside the lavatory unit prior to the expansion is encompassed within the internal floor space of the lavatory unit after expansion, and wherein the lavatory unit comprises a moveable wall assembly, the step of expanding the lavatory unit may comprise displacing the moveable wall assembly, and wherein the lavatory unit comprises a door assembly and in the able-bodied configuration the door assembly is operable to an open position in which an able-bodied user can access the first internal floor space via a first door opening in the perimeter wall, the first door opening having a first effective width; and wherein in the PRM-accessible configuration the door assembly is operable to an open position in which a PRM can access the internal floor space via a second door opening in the perimeter wall, the second door opening having a second effective width.

The method may comprise an able-bodied user accessing the interior of the lavatory unit in the able-bodied configuration using a (primary) door. The method

may comprise a PRM accessing the interior of the lavatory unit in the PRM-accessible configuration using the same (primary) door and, optionally, another, for example a secondary, door. The primary and secondary doors may form part of a door assembly.

The method may comprise reconfiguring, for example contracting, the lavatory unit, for example from the PRM-accessible configuration to the able-bodied configuration, such that cabin floor space that was encompassed within the internal

Claims

1. A lavatory unit for an aircraft cabin, the lavatory unit comprising a perimeter wall that separates an internal space of the unit from space external to the unit, and a door assembly;

wherein the lavatory unit is configurable between an able-bodied configuration and a PRM-accessible configuration

wherein in the able-bodied configuration the lavatory unit has a first internal floor space and there is a cabin floor space external to the lavatory unit,

wherein the lavatory unit is expandable into the PRM-accessible configuration in which the lavatory unit is expanded to have a second internal floor space, the second internal floor space encompassing a region of the cabin floor space;

wherein the perimeter wall comprises a moveable wall assembly;

wherein in the able-bodied configuration the moveable wall assembly is in a retracted configuration,

wherein the moveable wall assembly is moveable into an expanded configuration to expand the lavatory unit into the PRM-accessible configuration; and

wherein in the able-bodied configuration the door assembly is operable to an open position in which an able-bodied user can access the first internal floor space via a first door opening in the perimeter wall, the first door opening having a first effective width; and

wherein in the PRM-accessible configuration the door assembly is operable to an open position in which a PRM can access the internal floor space via a second door opening in the perimeter wall, the second door opening having a second effective width; and

wherein the second effective width is greater than the first effective width.

2. The lavatory unit of claim 1, wherein the lavatory unit, for example the moveable wall assembly, comprises at least one panel assembly configured to cover a gap that would otherwise be created in the perimeter wall of the lavatory unit when the lavatory unit is expanded, for example as the moveable wall assembly moves from the retracted configuration to the expanded configuration.

3. The lavatory unit of claim 2, wherein the at least one panel assembly comprises a foldable panel, for example a bi-fold panel, that expands by unfolding.

4. The lavatory unit of claim 2 or claim 3, wherein the at least one panel assembly comprises a sliding panel, for example a panel slidably mounted for movement relative to the moveable wall assembly, and wherein the panel slides from a first position when the lavatory unit is in the able-bodied configuration to a second position when the lavatory unit is in the PRM-accessible configuration and thereby covers a gap that would otherwise be created in the perimeter wall of the lavatory unit as the moveable wall assembly moves between the retracted configuration and the expanded configuration.

5. The lavatory unit of any previous claim,

wherein in the able-bodied configuration the door assembly is operable to a closed position in which the door prevents access to the first internal floor space via said first door opening; and

wherein in the PRM-accessible configuration the door assembly is operable to a closed position in which the door prevents access to the internal floor space via said second door opening.

6. The lavatory unit of any previous claim, wherein the moveable wall assembly comprises the door assembly.

7. The lavatory unit of any preceding claim, wherein the door assembly comprises a primary door and a secondary door,

wherein the primary door provides access to the first door opening; and

the primary door and the secondary door cooperate to provide access to the second door opening.

8. The lavatory unit of any previous claim, the lavatory unit comprising a crew seat mounted on an inboard side of the unit.

9. The lavatory unit of any previous claim, the lavatory unit comprising a toilet, and

wherein in the PRM-accessible configuration, the interior space comprises a recess sized and shaped to receive the knees of a PRM sitting on the toilet and/or a PRM sitting in a wheelchair received within the lavatory unit.

10. The lavatory unit of any previous claim, the lavatory unit comprising a sink, for example located adjacent an inboard and/or forward side of the unit.

11. The lavatory unit of any previous claim, wherein the maximum length of the lavatory unit in the able-bodied configuration is no more than 38 inches.

12. An aircraft comprising a lavatory unit according to any previous claim.

13. The aircraft of claim 12, the aircraft cabin comprising a row of seats, an aircraft door, and an egress pathway associated with the aircraft door;

wherein the lavatory unit is located aft of the row of seats and immediately adjacent to the egress pathway.

14. A method of reconfiguring an aircraft lavatory unit to enable access by a PRM, the method comprising expanding the lavatory unit from an able-bodied configuration to a PRM-accessible configuration, such that cabin floor space that was located outside the lavatory unit prior to the expansion is encompassed within the internal floor space of the lavatory unit after expansion, and wherein the lavatory unit comprises a moveable wall assembly and expanding the lavatory unit comprises displacing the moveable wall assembly; and

wherein the lavatory unit comprises a door assembly and in the able-bodied configuration the door assembly is operable to an open position in which an able-bodied user can access the first internal floor space via a first door opening in the perimeter wall, the first door opening having a first effective width; and

wherein in the PRM-accessible configuration the door assembly is operable to an open position in which a PRM can access the internal floor space via a second door opening in the perimeter wall, the second door opening having a second effective width.