CLAIMS

1. A subsea system comprising:

underwater equipment;

a landing base module for landing and positioning the underwater equipment thereupon, the landing base module comprising a base member, a first buoyancy system, a plurality of connectors for connecting the underwater equipment to one or more flowlines and risers, and a plurality of mooring lines to secure the landing base module between a surface of a sea and a floor of the sea; and

a second buoyancy system for affixing to the underwater equipment, the second buoyancy system having sufficient buoyancy to float the underwater equipment toward the surface of the sea when detached from the landing base module;

wherein the underwater equipment includes a ballast system structured and arranged to permit the underwater equipment to be lowered onto the landing base module;

further wherein the flowlines connect the underwater equipment to an operations vessel at the surface of the sea; and

further wherein the risers connect the underwater equipment to subsea equipment located on the floor of the sea.

2. The system of claim 1, wherein the first buoyancy system comprises a syntactic foam core having a density sufficient to permit the landing base module to achieve a predetermined depth when the underwater equipment and second buoyancy system are attached thereto.

3. The system of claim 2, wherein the syntactic foam core of the first buoyancy system is encapsulated by a polymeric material.

4. The system of claim 3, wherein the polymeric material is selected from rotationally molded polyethylene, polyurethane elastomer, glass reinforced vinyl-ester, or combinations or mixtures thereof.

5. The system of claim 1, wherein the first buoyancy system comprises one or more vessels filled with a material selected from air, gases, or liquids having a density less than the density of water, or combinations or mixtures thereof.

6. The system of claim 1, wherein the second buoyancy system comprises a syntactic foam core having a density sufficient to permit the underwater equipment to float to the surface when the underwater equipment is detached from the landing base module.

7. The system of claim 6, wherein the syntactic foam core of the second buoyancy system is encapsulated by a polymeric material.

8. The system of claim 7, wherein the polymeric material is selected from rotationally molded polyethylene, polyurethane elastomer, glass reinforced vinyl-ester, or combinations or mixtures thereof.

9. A method of installing, suspending and removing underwater equipment comprising:

positioning a landing base module for landing and positioning the underwater equipment thereupon, the landing base module comprising a base member and a first buoyancy system;

connecting the underwater equipment to one or more flowlines and risers using a plurality of connectors on the landing base module, wherein the flowlines connect the underwater equipment to an operations vessel at a surface of a sea, and the risers connect the underwater equipment to subsea equipment located on a floor of the sea;

affixing mooring lines to the landing base module to secure the landing base module between the surface of the sea and the floor of the sea;

attaching a second buoyancy system to the underwater equipment, the second buoyancy system having sufficient buoyancy to float the underwater equipment toward the surface of the sea when detached from the landing base module;

adding ballast to a ballast system of the underwater equipment to lower the underwater equipment having the second buoyancy system; and

positioning the underwater equipment having the second buoyancy system attached thereto onto the landing base module.

10. The method of claim 9, further comprising detaching the underwater equipment and second buoyancy system from the landing base module; and removing ballast to raise the underwater equipment and second buoyancy system to the surface of the sea.

11. The method of claim 9, wherein the first buoyancy system comprises a syntactic foam core having a density sufficient to permit the landing base module to achieve a predetermined depth when the underwater equipment and second buoyancy system are attached thereto.

12. A kit of parts for installing, suspending and removing underwater equipment below a surface of a sea the kit of parts comprising:

a landing base module comprising a base member, a first buoyancy system, a plurality of connectors for connecting the underwater equipment to one or more flowlines and risers, and a plurality of mooring lines to secure the landing base module between the surface of the sea and a floor of the sea, wherein the flowlines connect the underwater equipment to an operations vessel at the surface of the sea, and the risers connect the underwater equipment to subsea equipment located on the floor of the sea; and

a second buoyancy system, the second buoyancy system having sufficient buoyancy to float the underwater equipment toward a surface of the sea when detached from the landing base module.