Based on the provided assurance case pattern predicates and the domain information related to the BlueROV2 system, here is an instantiated assurance case for BlueROV2 designed hierarchically:

@Assurance\_case

- G1: Hazards for BlueROV2 System addressed in accordance with ALARP principle.

- S1: Argument by risk reduction/elimination of each hazard

- G2: No intolerable risks present in the system.

- C1: Definition of "intolerable" = risk not acceptable in any circumstance within operational environment.

- S2: Argue that risk posed by any remaining hazards is negligible (undeveloped)

- S3: Argue that no other risks have been identified (undeveloped)

- G3: Risk from Obstacle Encounter has been reduced as low as reasonably practicable.

- C2: Assigned severity class is Major

- S4: Apply ReSonAte to estimate level of risk from hazard condition Obstacle Encounter

- A1: Function obstacle detection required by BTD is available

- G4: Model BTD accurately describes possible propagation of hazard Obstacle Encounter.

- G6: Possible hazard propagation paths correctly captured in BTD (undeveloped)

- G7: Barriers in the BTD correctly describe their respective control action including system functions such as Avoidance Maneuver and Emergency Stop (undeveloped)

- G8: All non-negligible threats have been identified (undeveloped)

- G5: Quantitative risk estimates are accurate and below acceptable threshold.

- Sn1: Estimated risk level 10^-3 per hour (collision consequence)

- G9: State probability distribution used for risk estimation is an accurate representation of expected system states (undeveloped)

- G10: Estimated probability of collision is below allowable threshold for severity class Major (undeveloped)

@End\_Assurance\_case

This hierarchical assurance case for BlueROV2 follows the goals, strategies, contexts, and solutions laid out in the given pattern, adapted to the detailed specifics from the domain information about the BlueROV2 system. Note that undeveloped and uninstantiated elements signify areas that need further elaboration or instantiation within further detailed operational or hazard-specific documentation.