1085-76-274 **Andrey A. Gelash*** (gelash@srd.nsu.ru), Novosibirsk State University, 630090 Novosibirsk, Russian Federation, and **Vladimir E. Zakharov** (zakharov@math.arizona.edu), University of Arizona, 857201 Tucson, AZ, USA. *On nonlinear stage of the modulational instability.*

There is a point of common agreement that freak (or rogue) waves appear as a result of modulational instability of quasimonochromatic nonlinear waves. In terms of the Nonlinear Schrödinger Equation (NLSE) model we should study instability of the "condensate" in the focusing version of this equation. In this work we study only solitonic solutions of NLSE. By the use of "dressing method" we obtain explicit expressions for general one and two-solitonic solutions. General n-solitonic solution we obtain in the form of the ratio of two determinants. These solutions are not new; however, their properties have not been studied carefully. Among wide family of solutions we separate a special class of "regular solitonic solutions" which localized in space and have equal phases at $x \to \pm\infty$. If we assume that the modulational instability develops from localized perturbation, only regular solution can be used as model for its nonlinear behavior. We show criterion that n-solitonic solution is regular. The central point of our work is a description of a class of regular solution which is a small perturbation at initial moment of time. This allows us to describe the development of the nonlinear stage of modulation instability. (Received September 11, 2012)