

KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

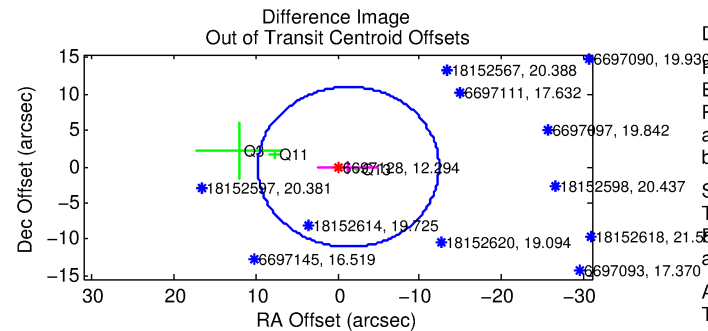
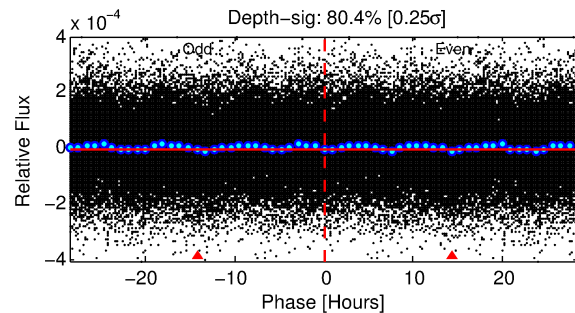
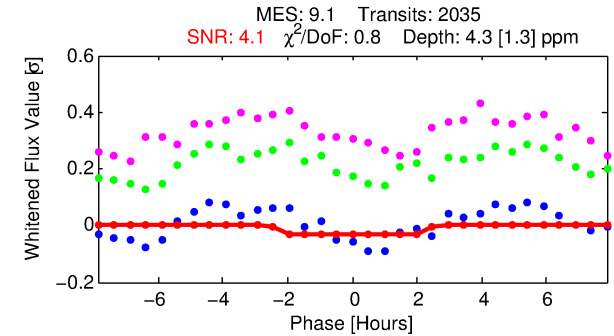
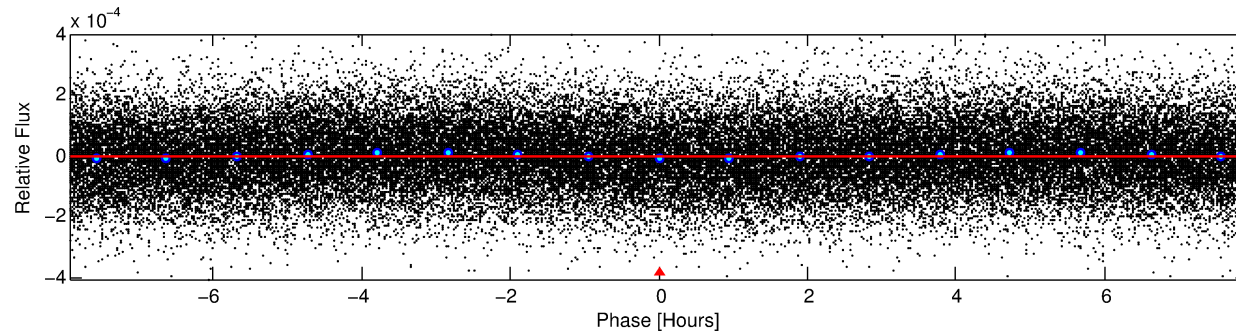
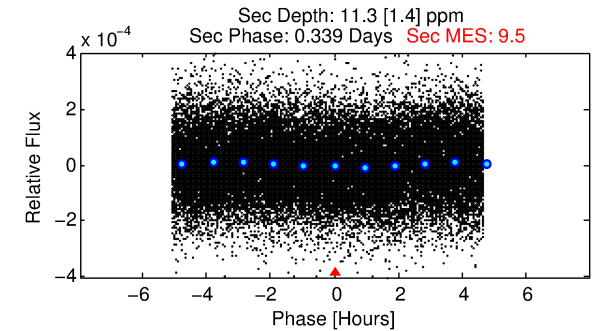
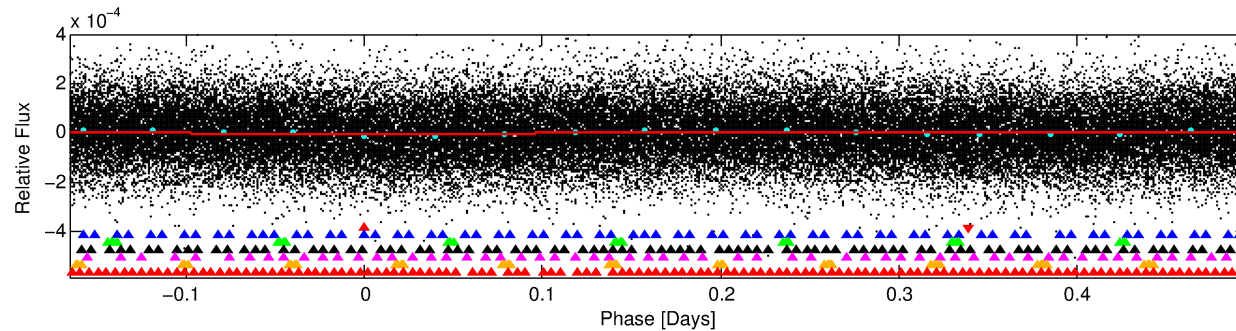
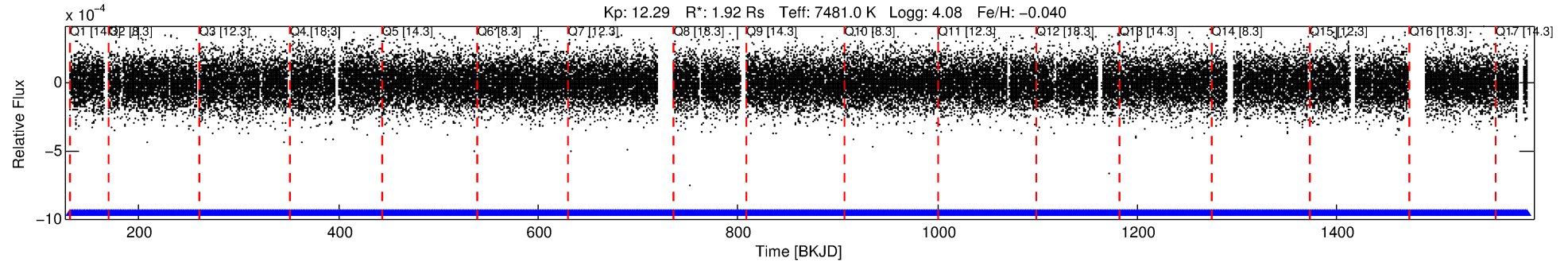
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-01

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 1 of 7 Period: 0.661 d



DV Fit Results:

Period = 0.66090 [0.00003] d
Epoch = 131.6451 [0.0102] BKJD
Rp/R* = 0.0020 [0.0025]
a/R* = 1.22 [3.07]
b = 0.35 [19.59]
Seff = 33827.22 [8325.00]
Teq = 3458 [213] K
Rp = 0.41 [0.52] Re
a = 0.0175 [0.0029] AU
Ag = 11.35 [28.60] [0.36σ]
Teffp = 9814 [6155] K [1.03σ]

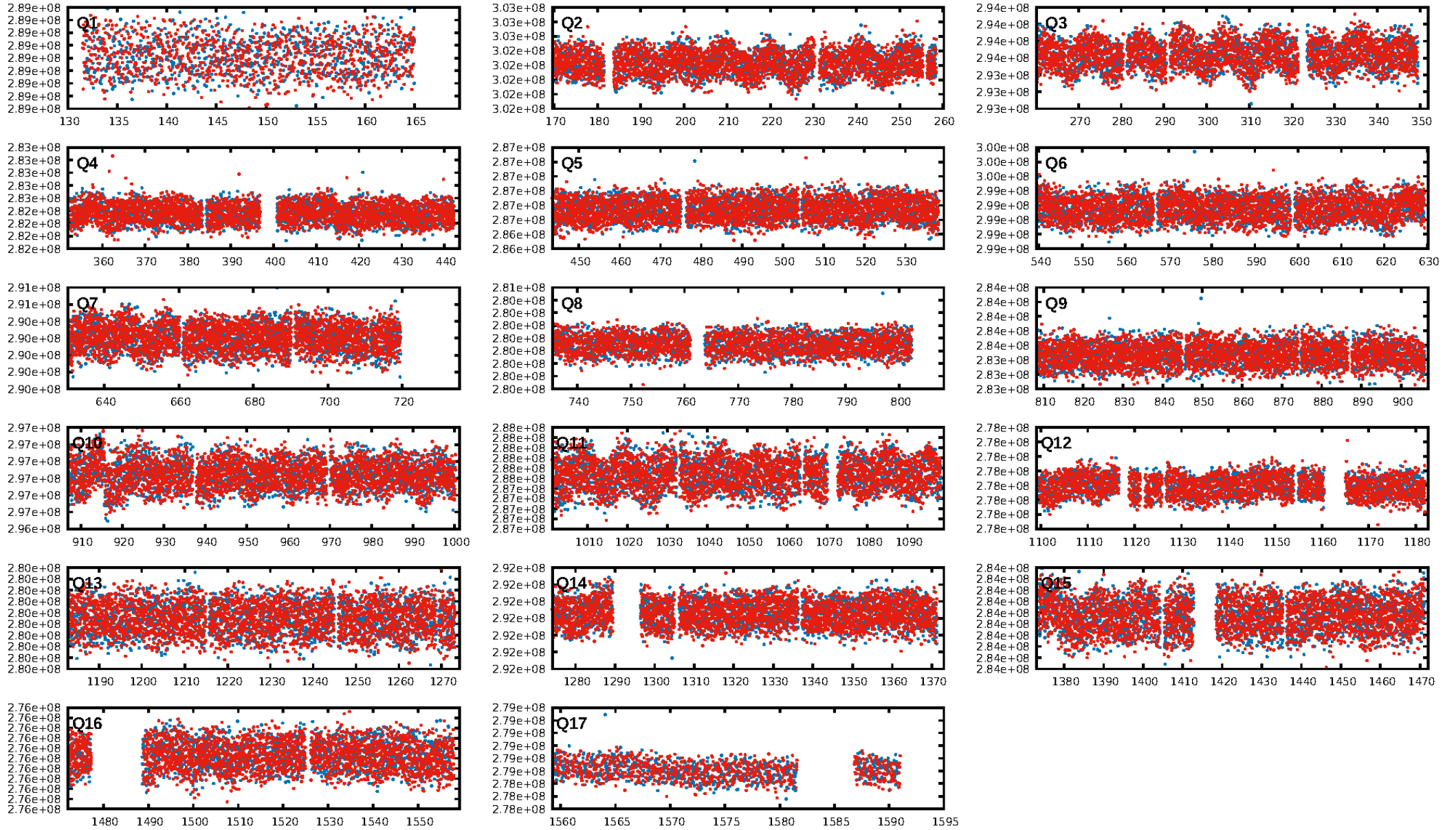
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [50.94σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.57e-08
RollingBand-fgt: 1.00 [1942/1942]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.311 arcsec [0.36σ]
KicOffset-rm: 1.278 arcsec [0.28σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [17/17]

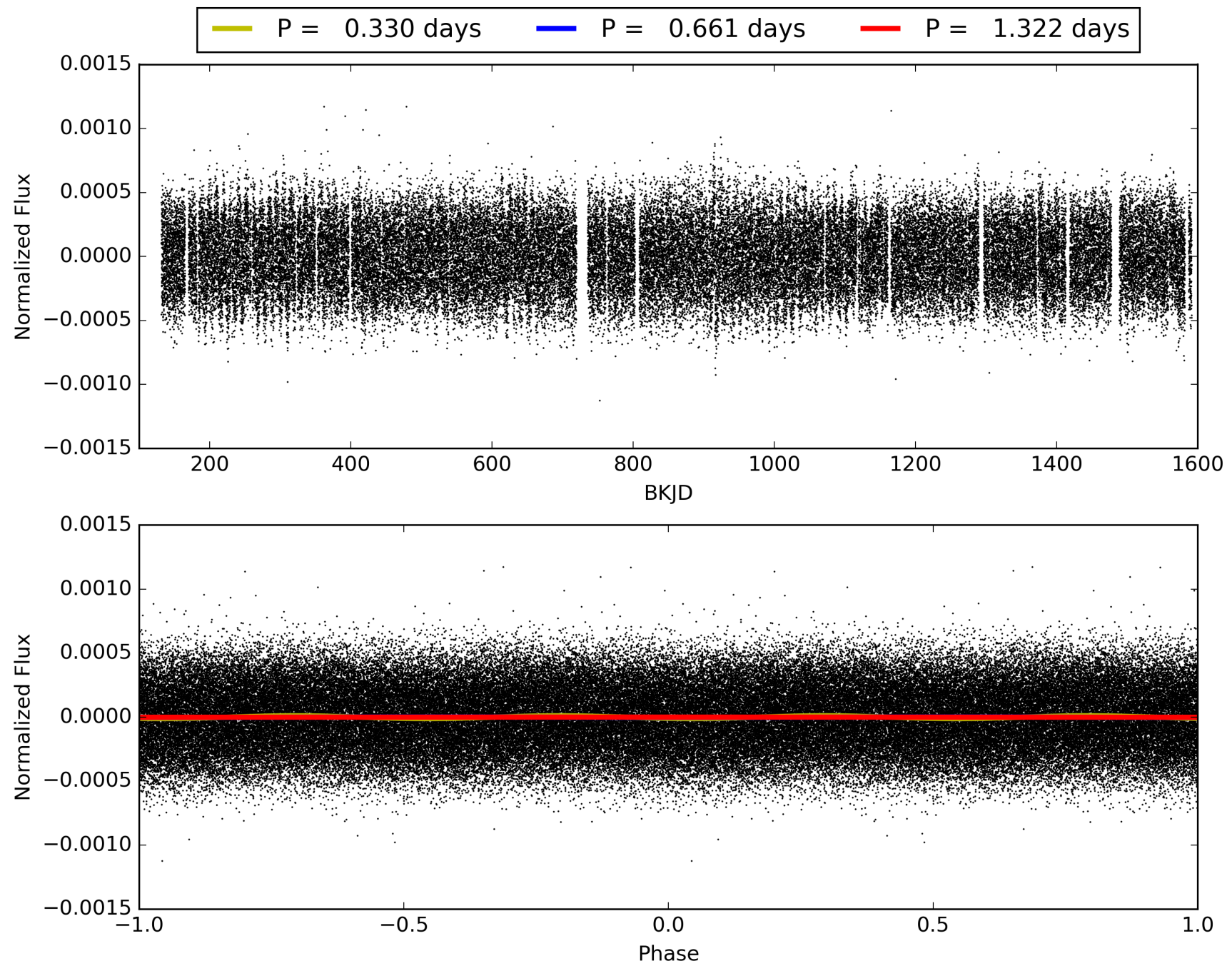
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:34:43 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-01, PDC Light Curves

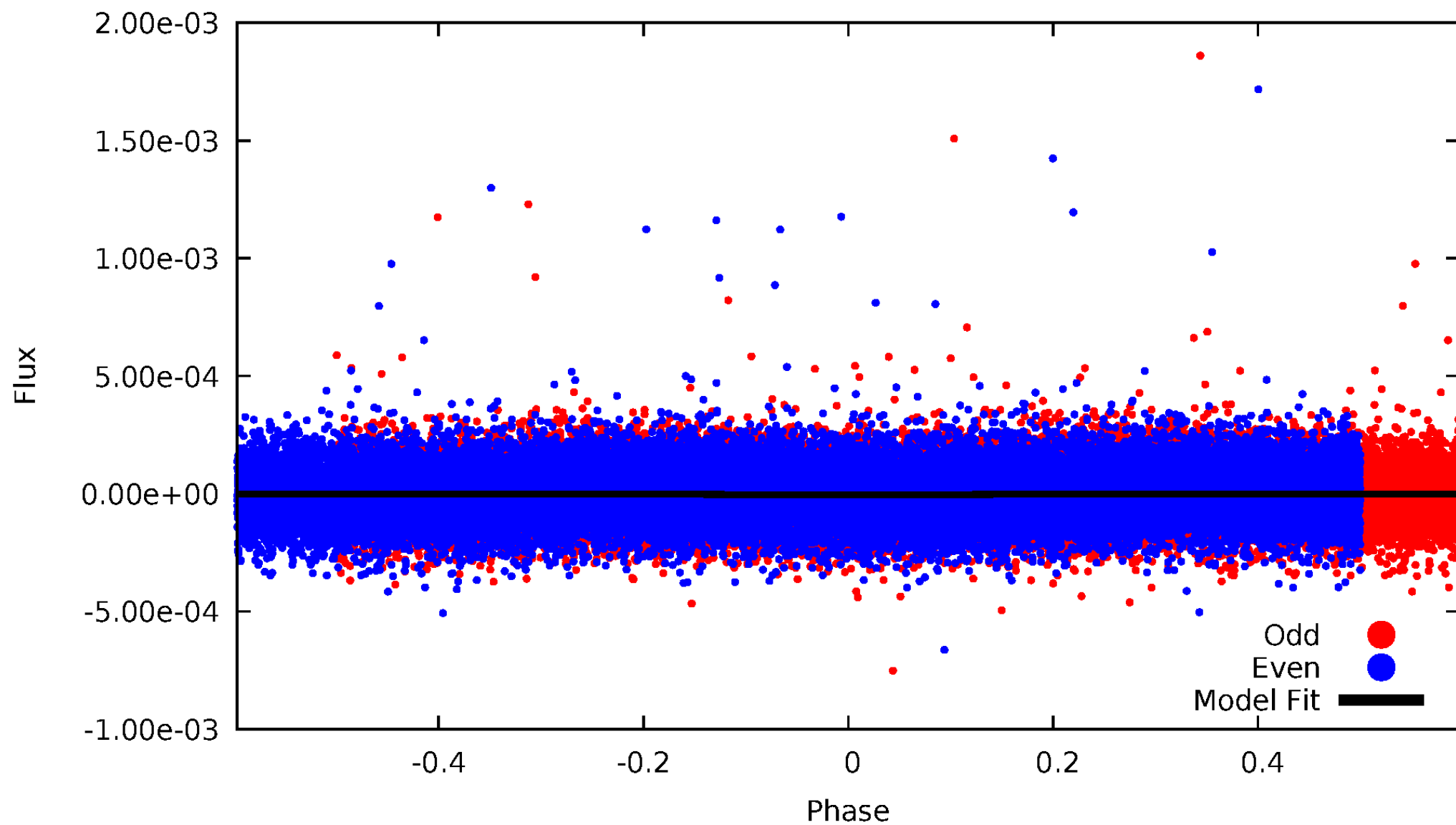


TCE 006697128-01



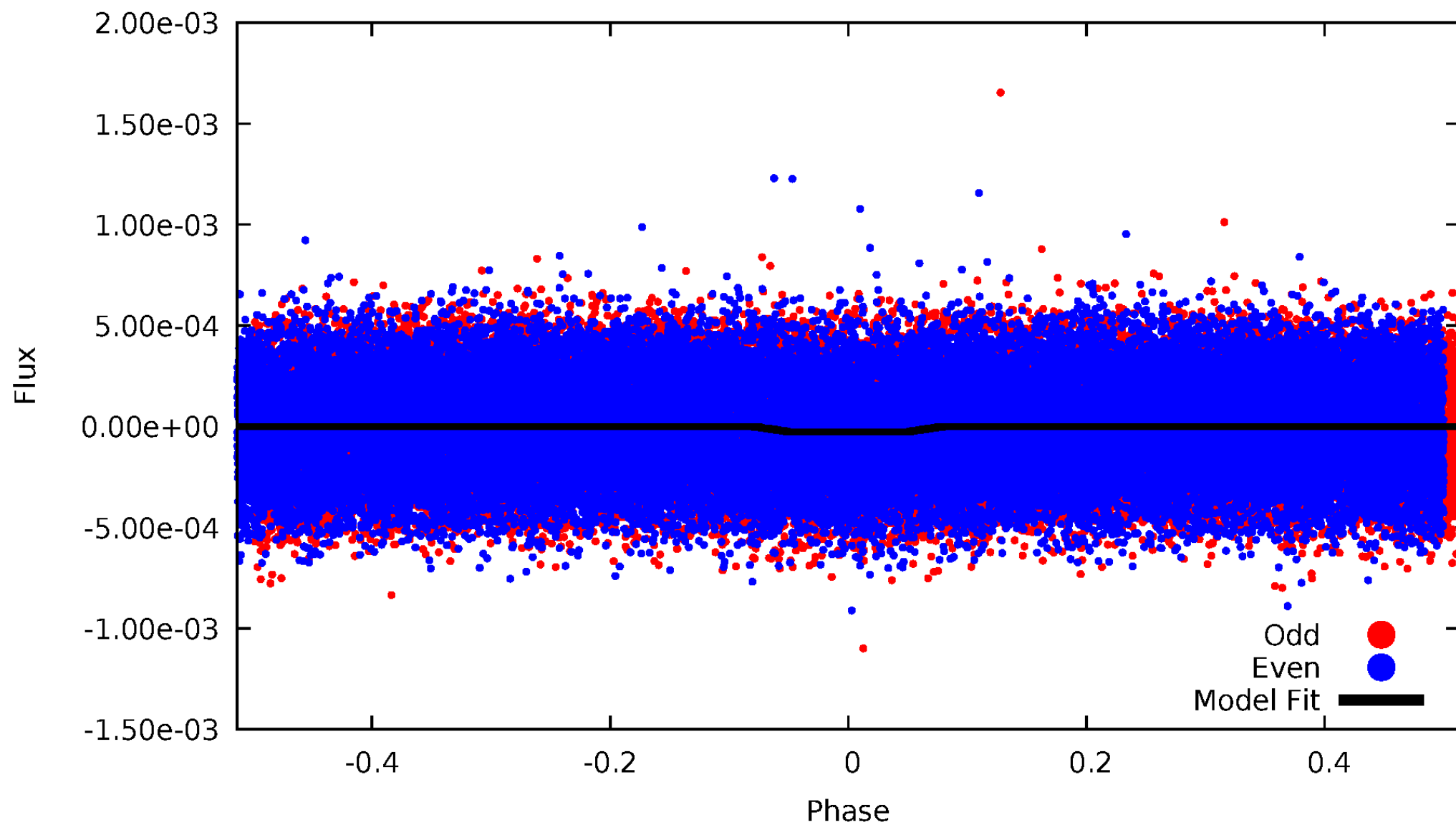
DV Odd/Even

TCE 006697128-01

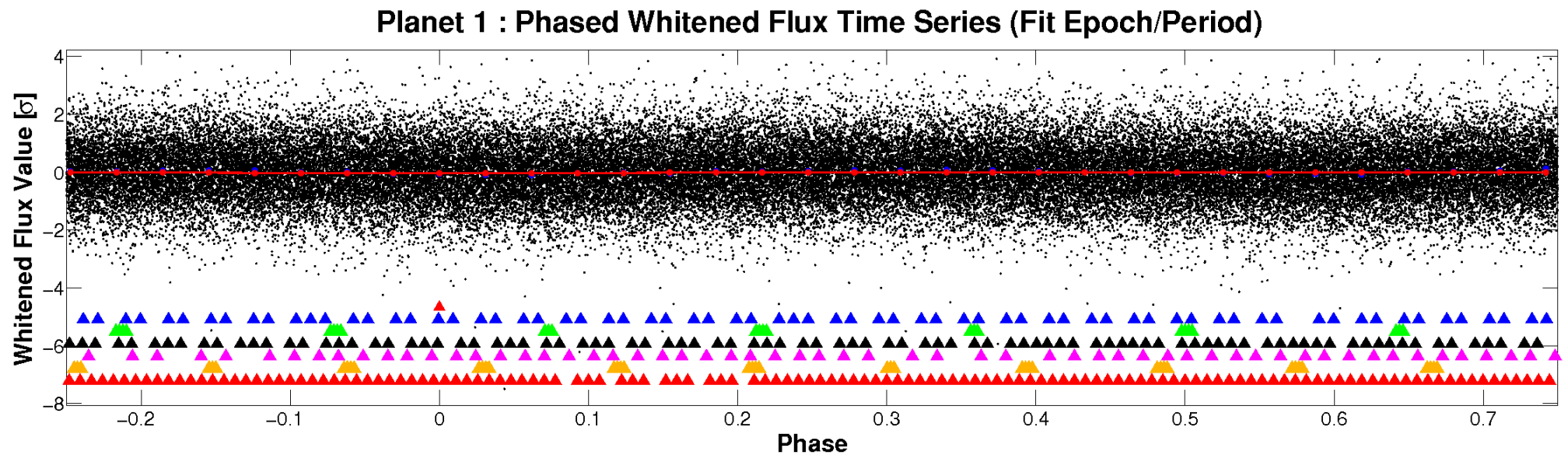
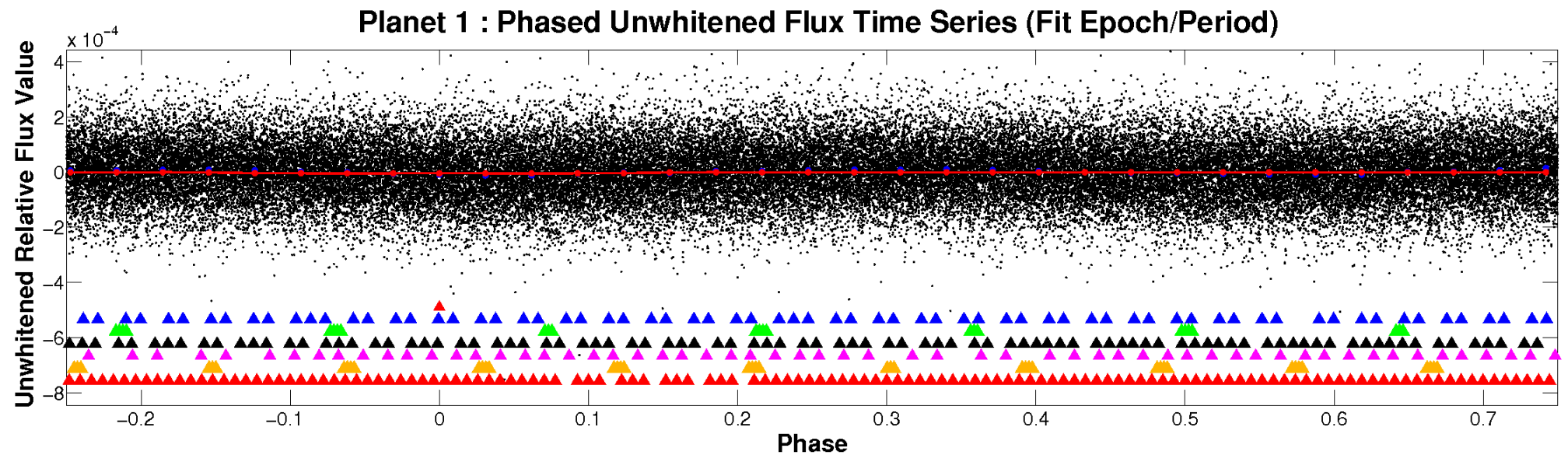


ALT Odd/Even

TCE 006697128-01

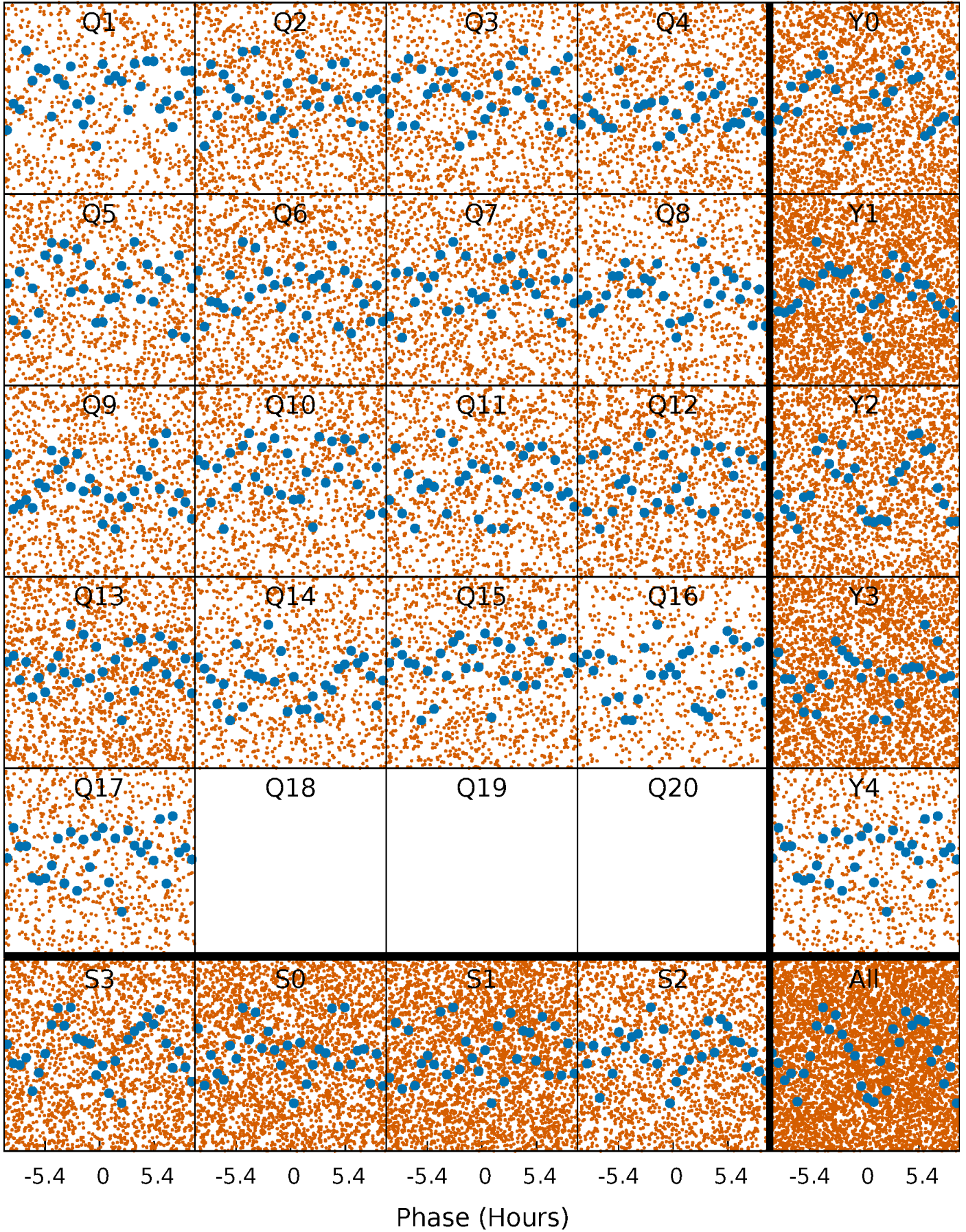


Non-Whitened Vs. Whitened Light Curve



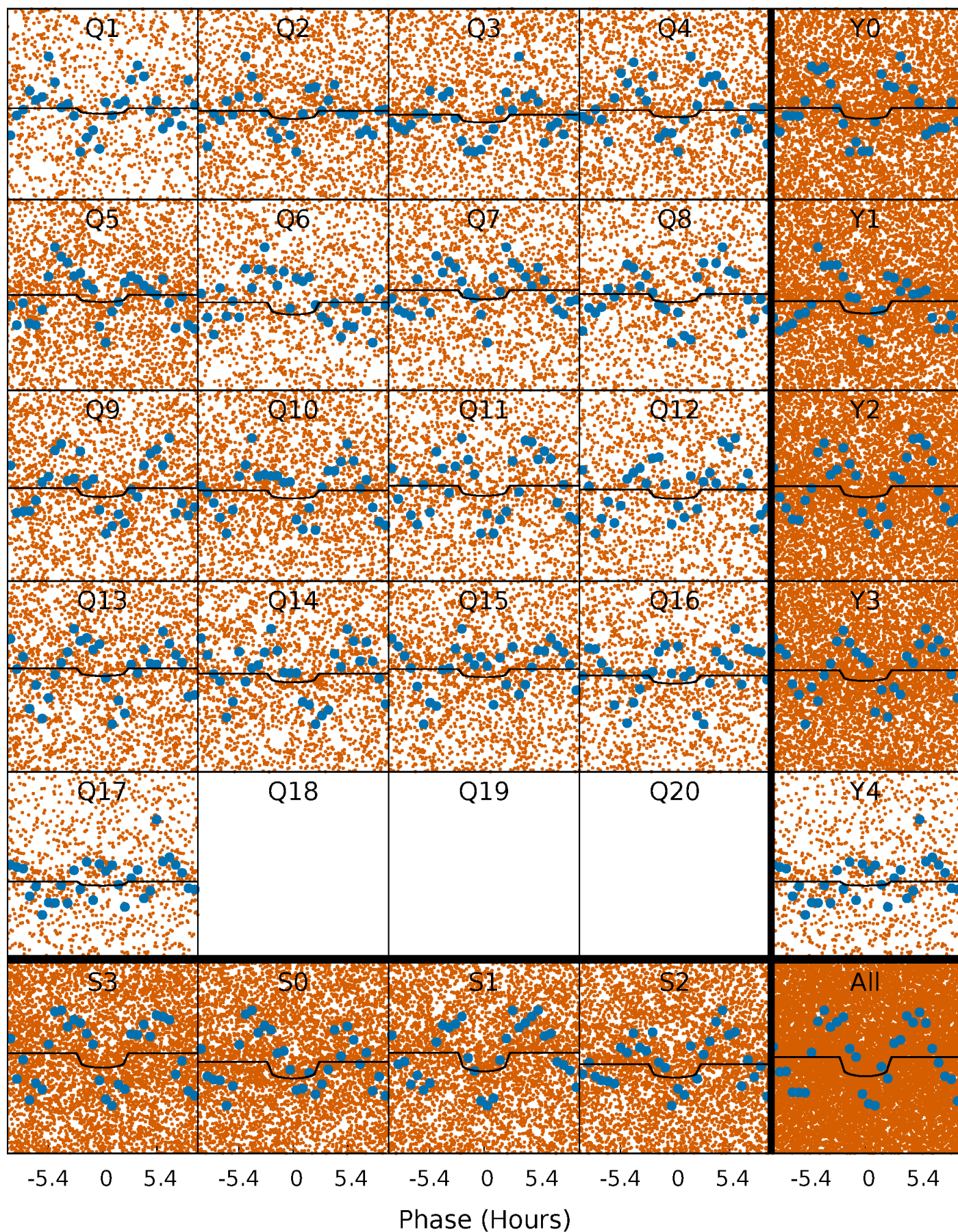
PDC Quarter-Phased Transit Curves

TCE 006697128-01 P= 0.660903 Days $T_0=131.645149$ (BKJD)



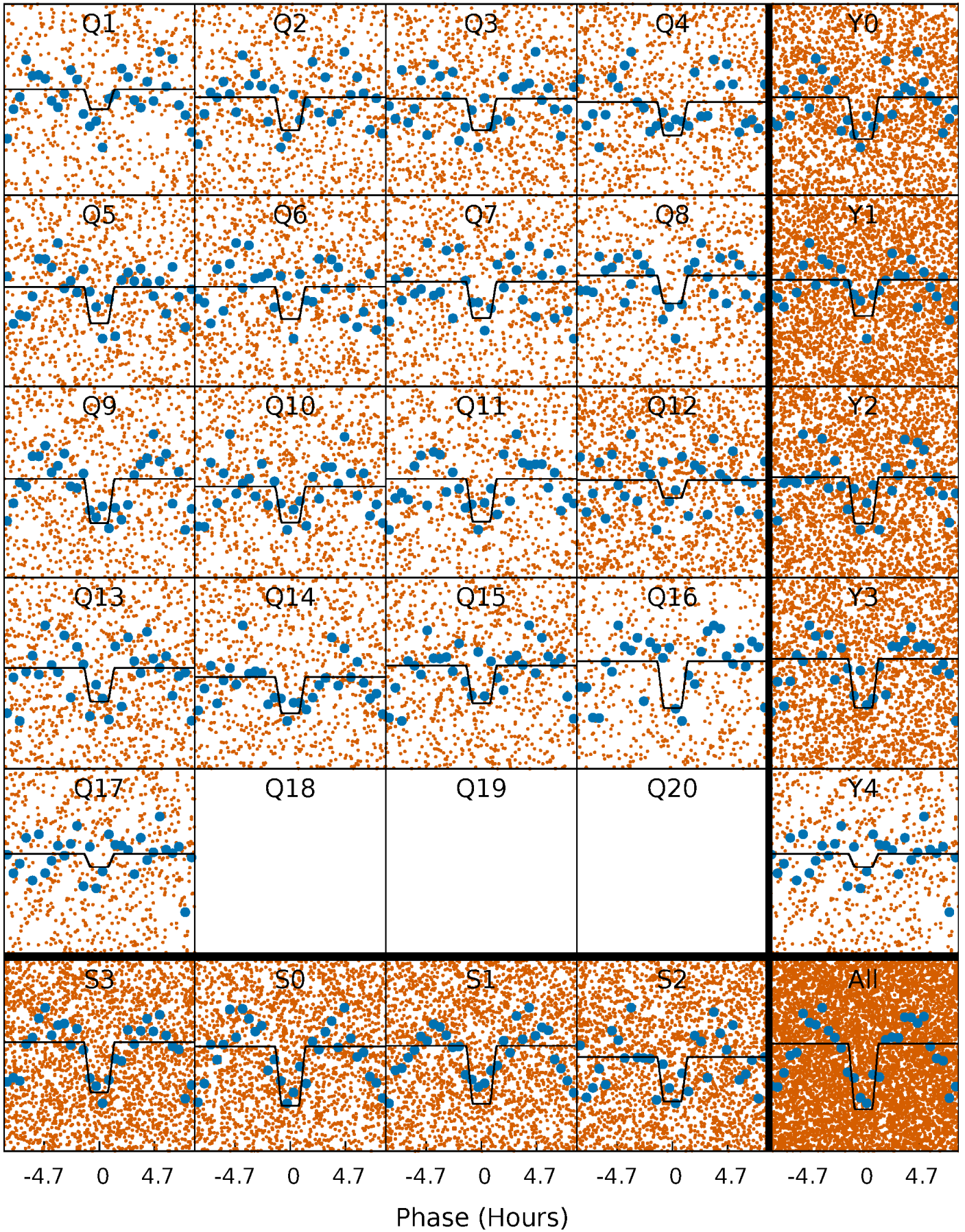
DV Quarter-Phased Transit Curves

TCE 006697128-01 P= 0.660903 Days $T_0=131.645149$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

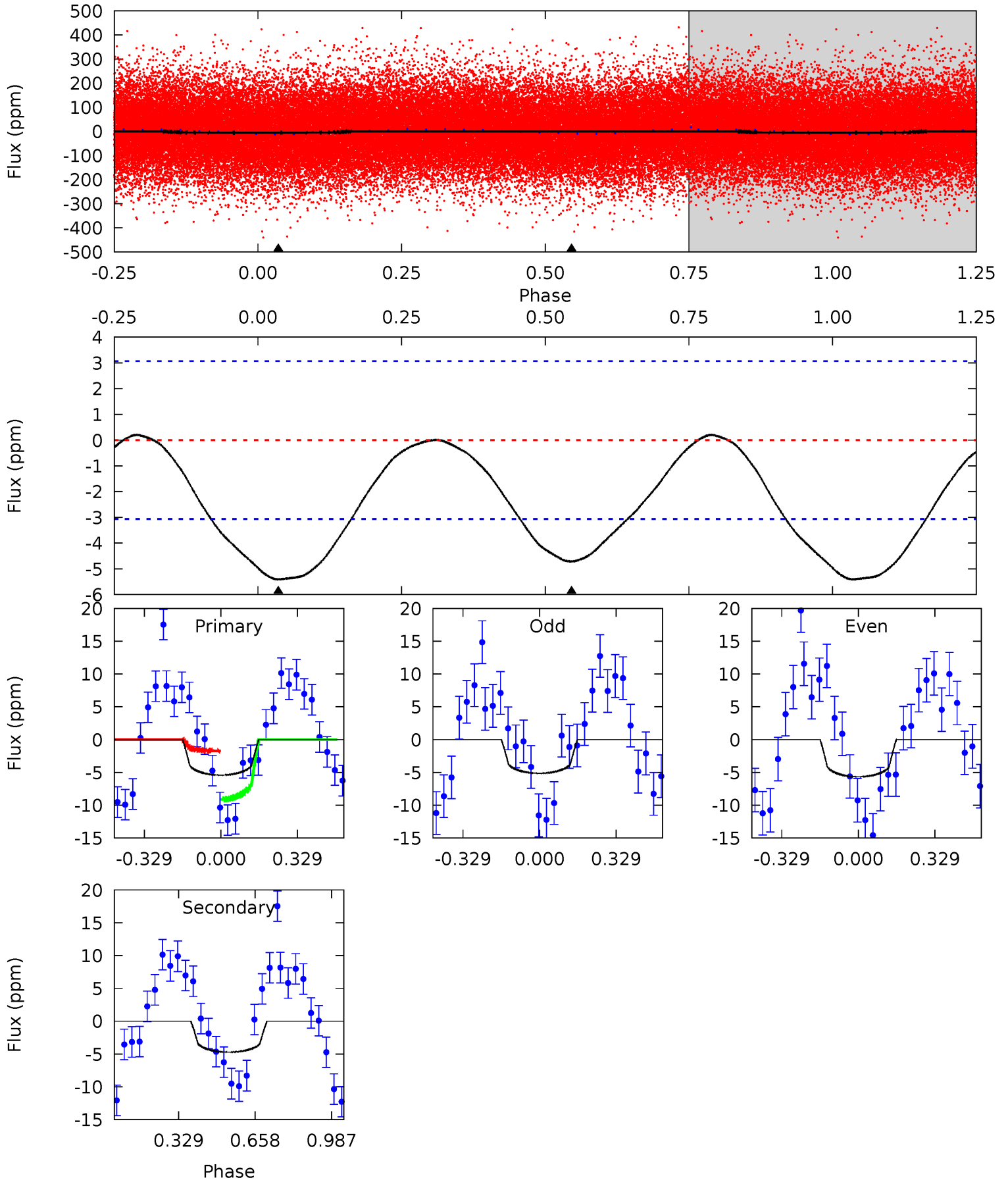
TCE 006697128-01 P= 0.660965 Days $T_0=131.607132$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-01, P = 0.660903 Days, E = 130.984246 Days

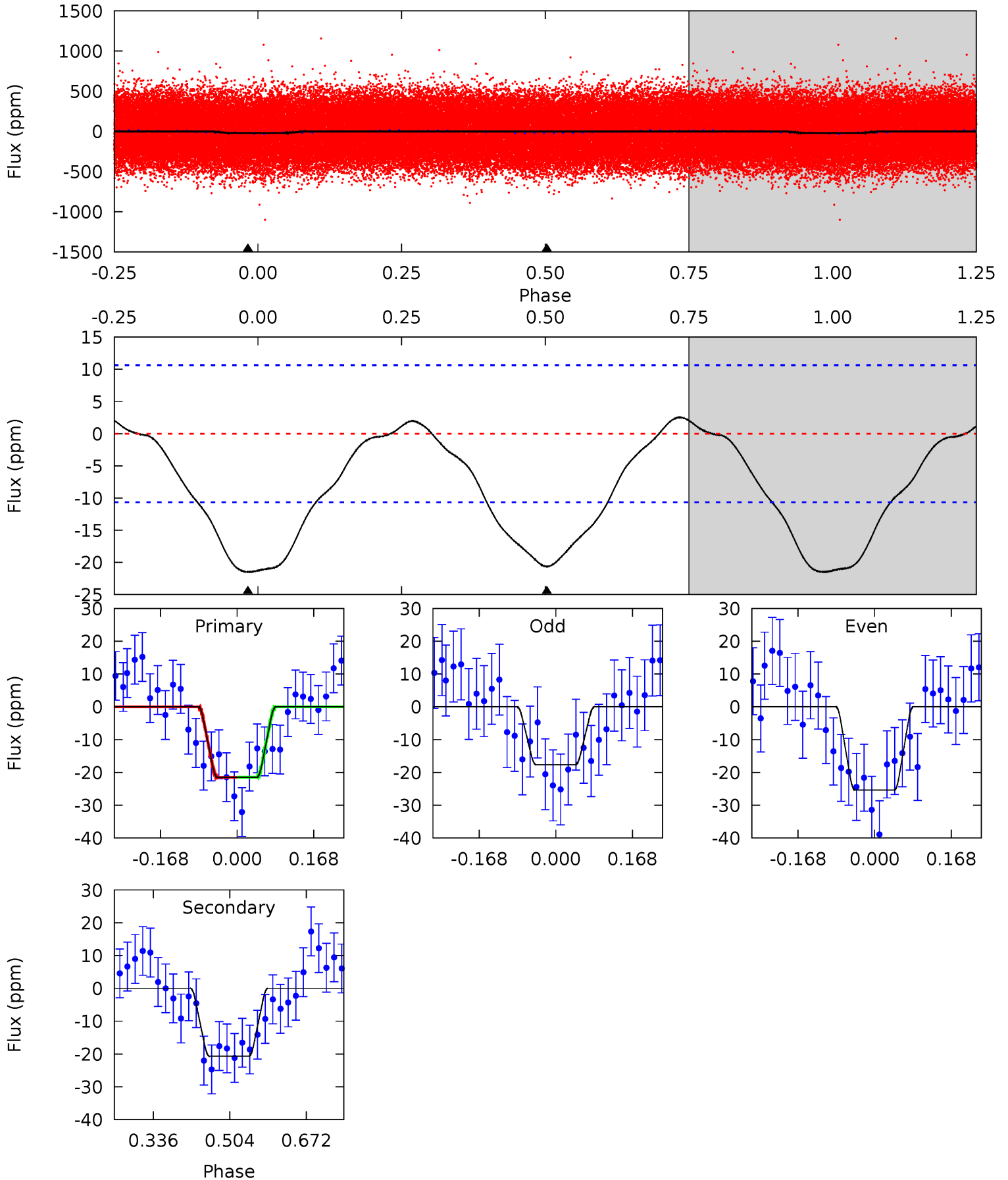
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.61	6.64	0	0	4.31	0.98	0.20	7.61	7.61	6.64	6.64	0.38	0.67	0.04	5.17



Alt Model-Shift Uniqueness Test

006697128-01, P = 0.660965 Days, E = 130.946167 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.99	8.63	0	0	4.45	1.38	0.70	8.99	8.99	8.63	8.63	1.61	0.98	0.11	0.01



Stellar Parameters For KIC 006697128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 1	$0.53^{+0.49}_{-0.34}$	4854^{+224}_{-197}	6634^{+7461}_{-2083}	$2.760^{+18.923}_{-2.010}$
Alt.	-21 ± 2	$1.13^{+0.50}_{-0.50}$	4848^{+233}_{-193}	6660^{+3011}_{-1353}	$2.755^{+5.897}_{-1.492}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

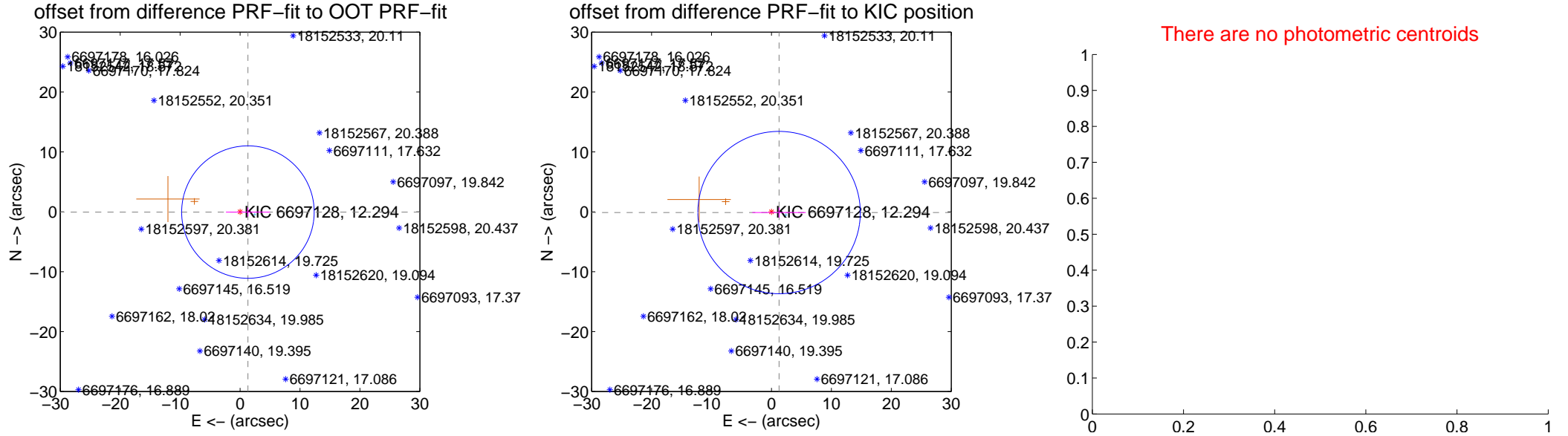
DV Centroid Data

Supplemental centroid analysis for 006697128-01. Kepler magnitude: 12.29. Transit SNR 4.09

There are 1 quarters with good PRF difference image offsets

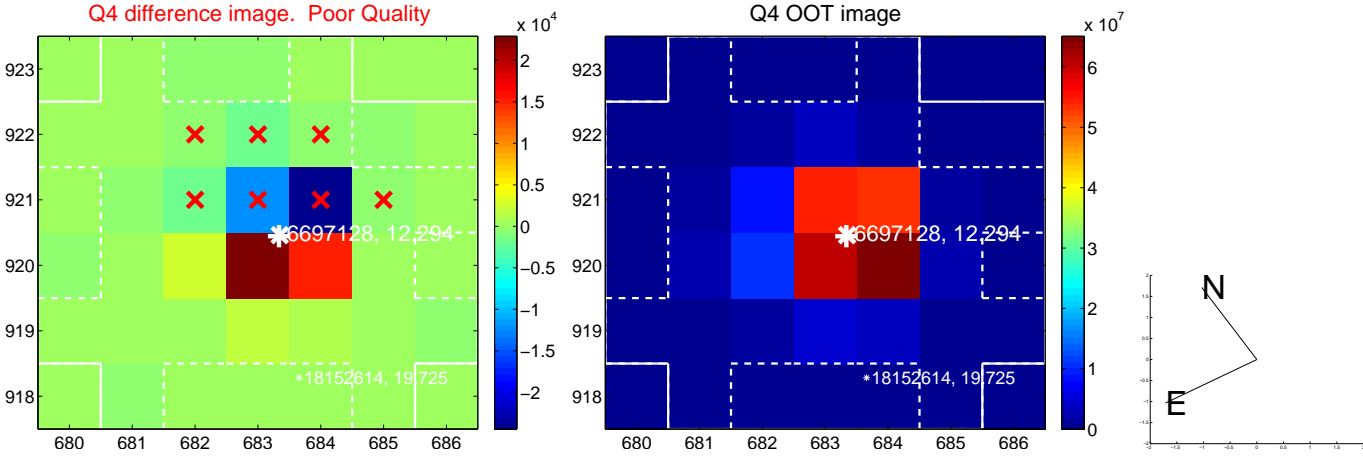
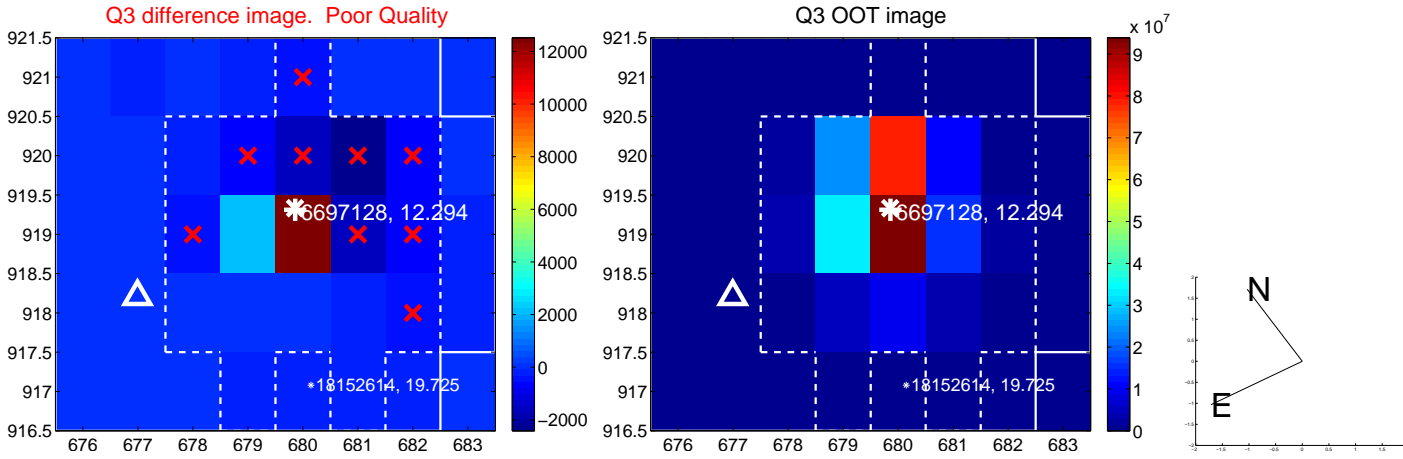
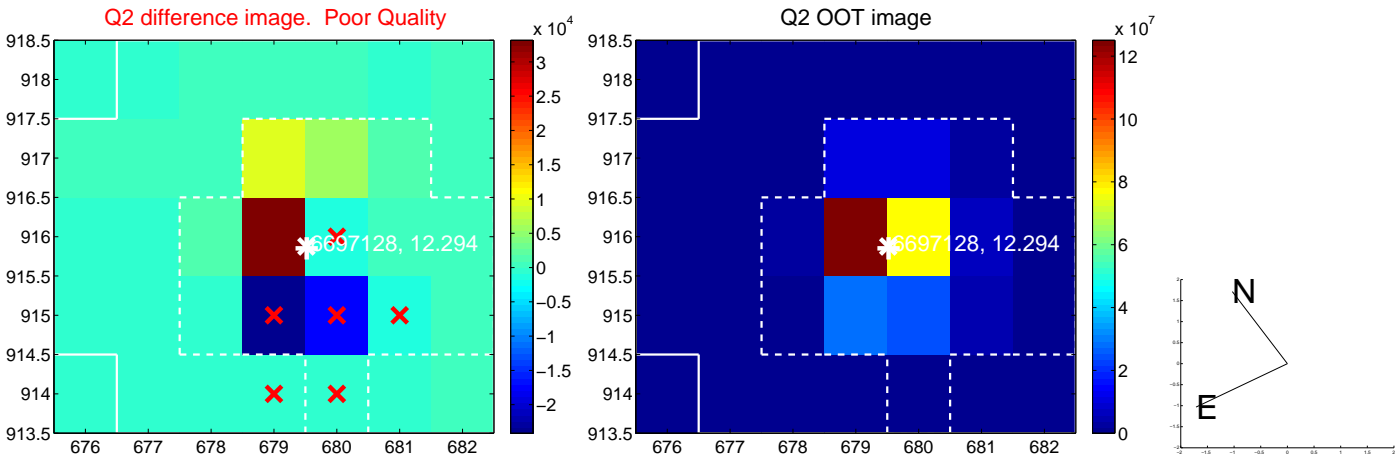
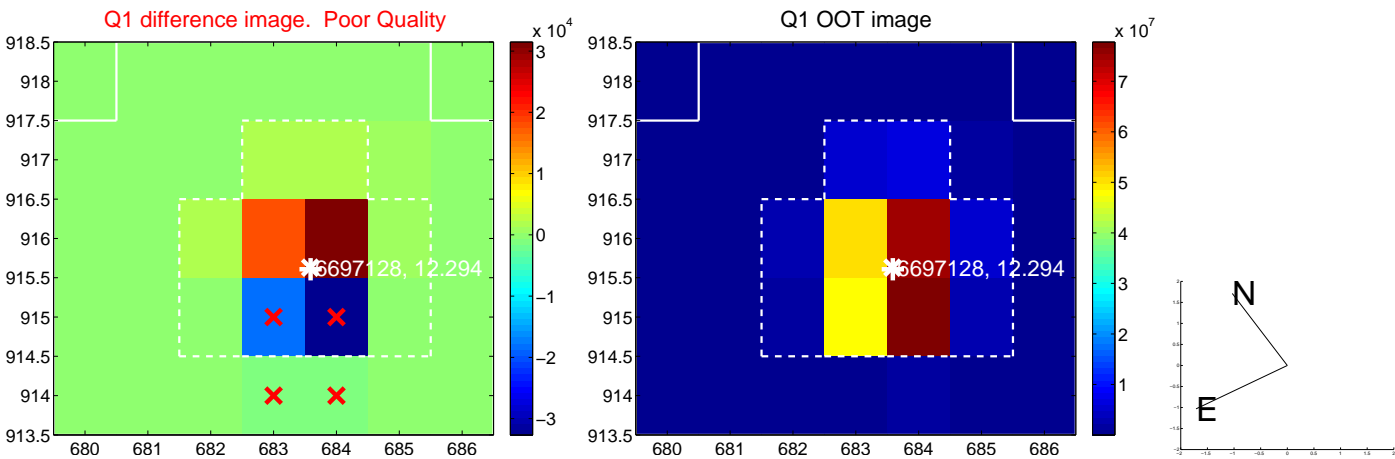
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.311 ± 3.685	0.36	-1.310 ± 3.663	-0.044 ± 0.746
PRF-fit source offset from KIC position	1.278 ± 4.517	0.28	-1.272 ± 4.458	-0.125 ± 0.829
photometric centroid source offset	—	—	—	—

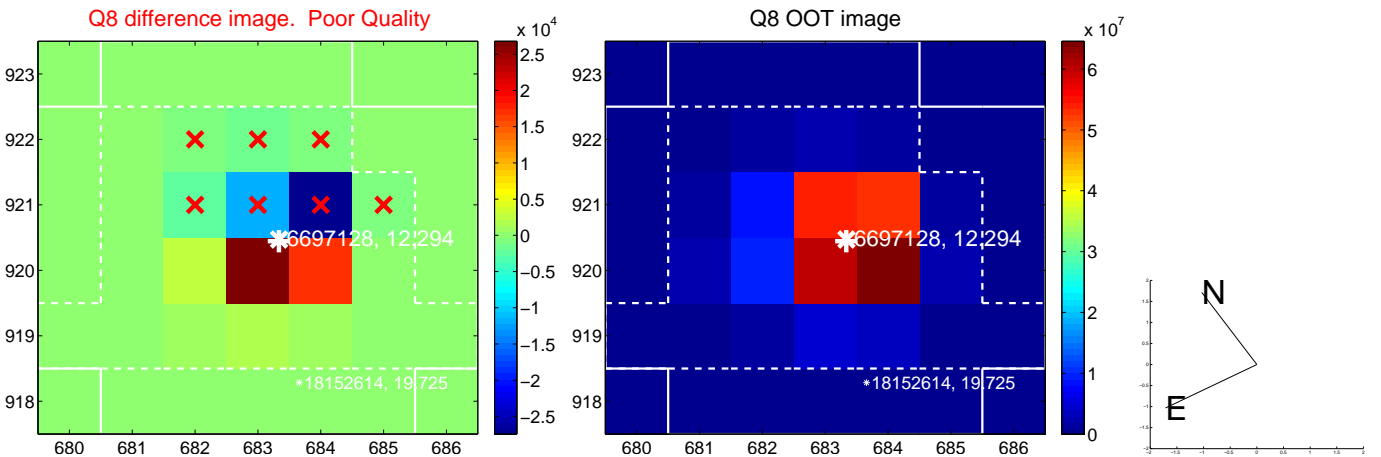
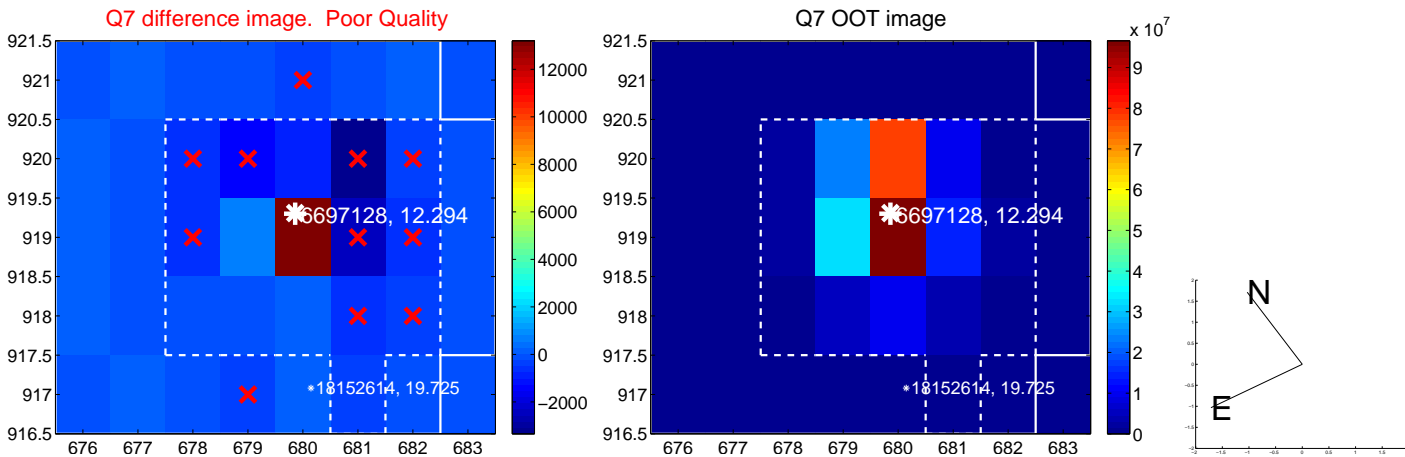
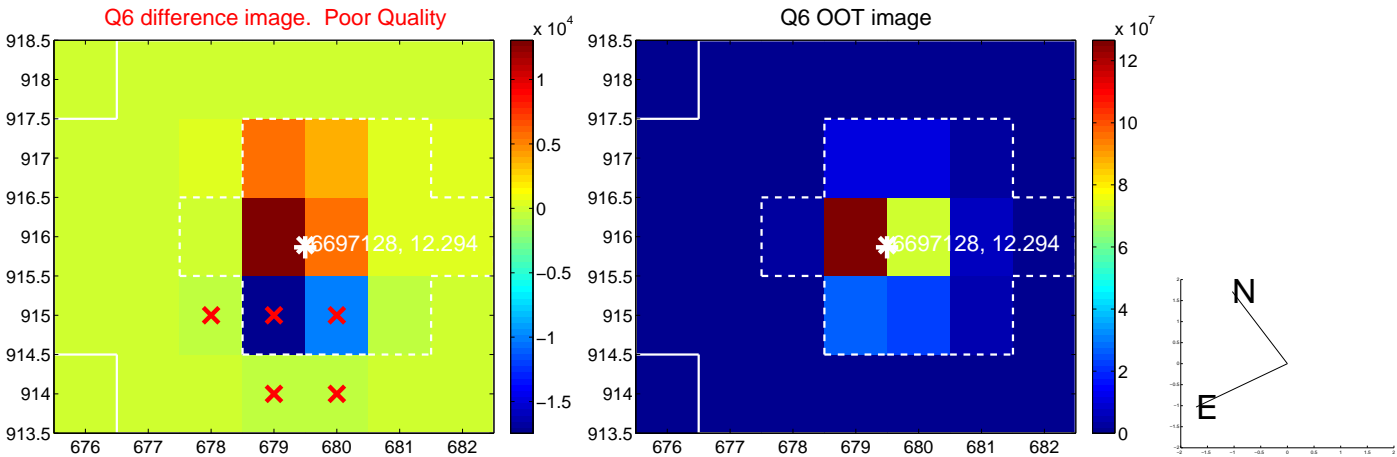
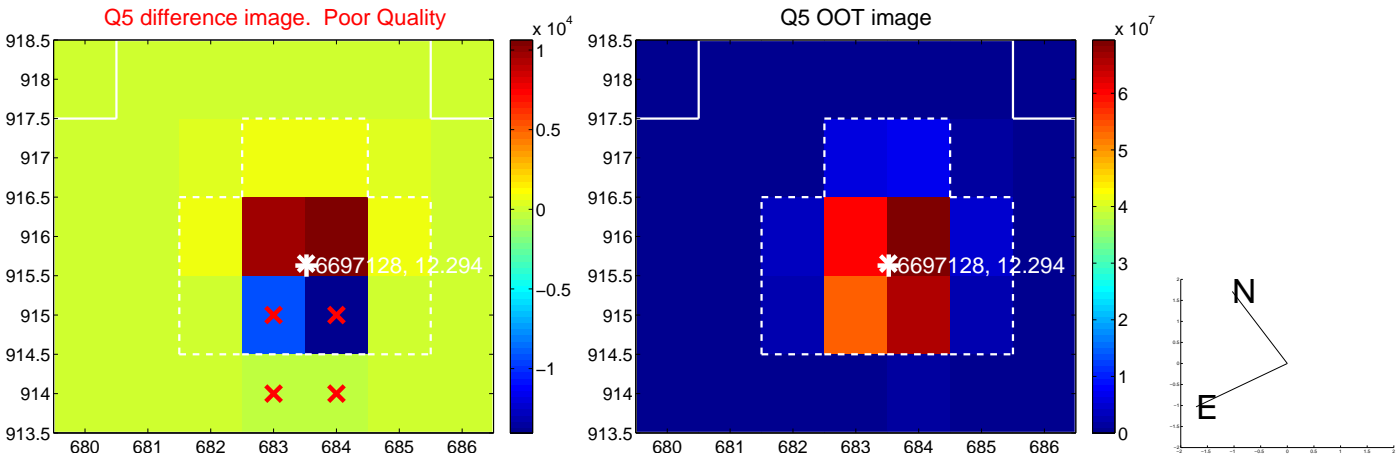


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

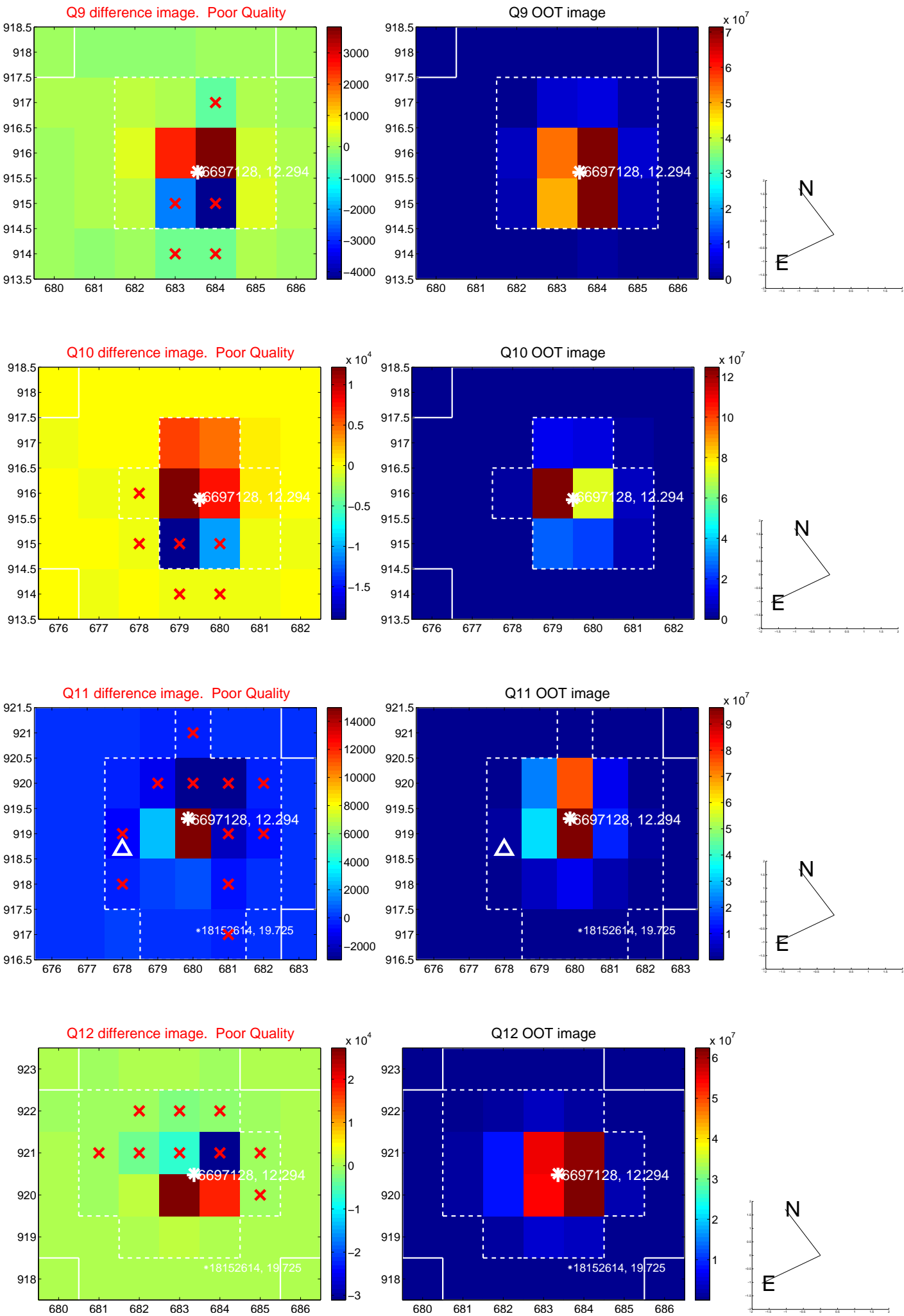
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



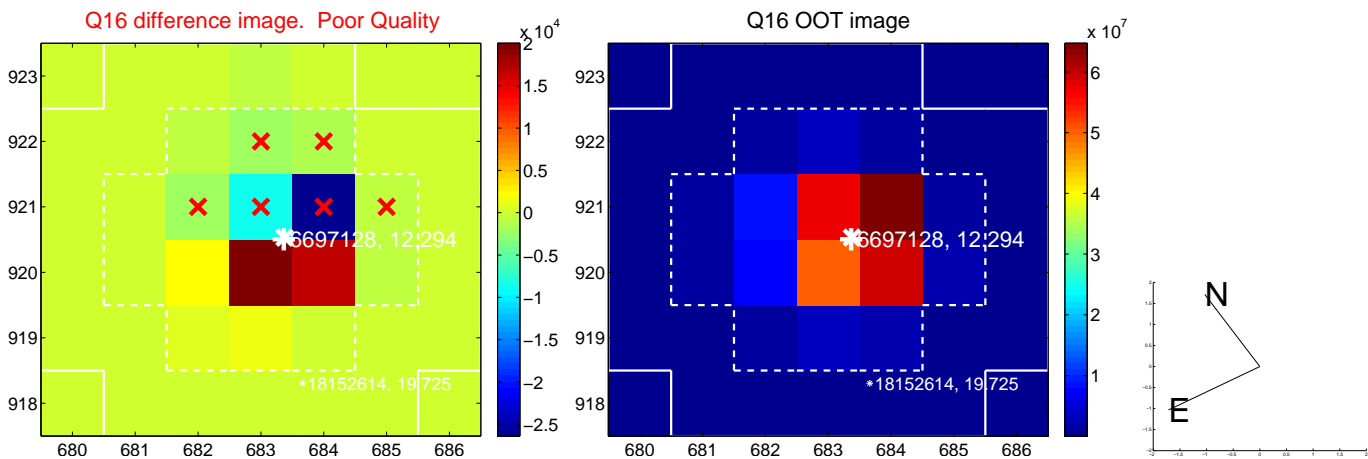
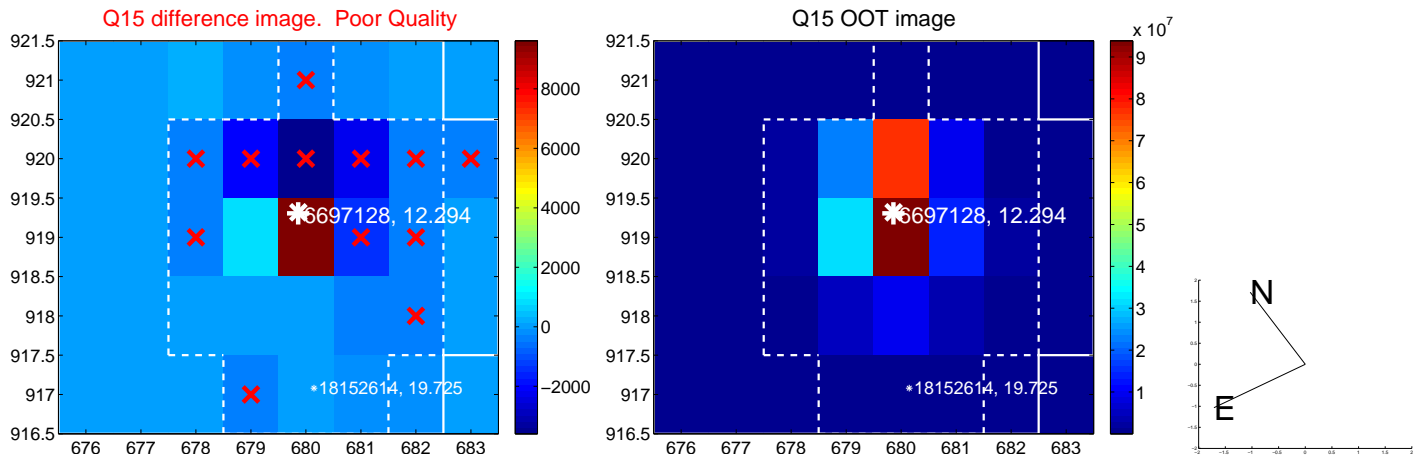
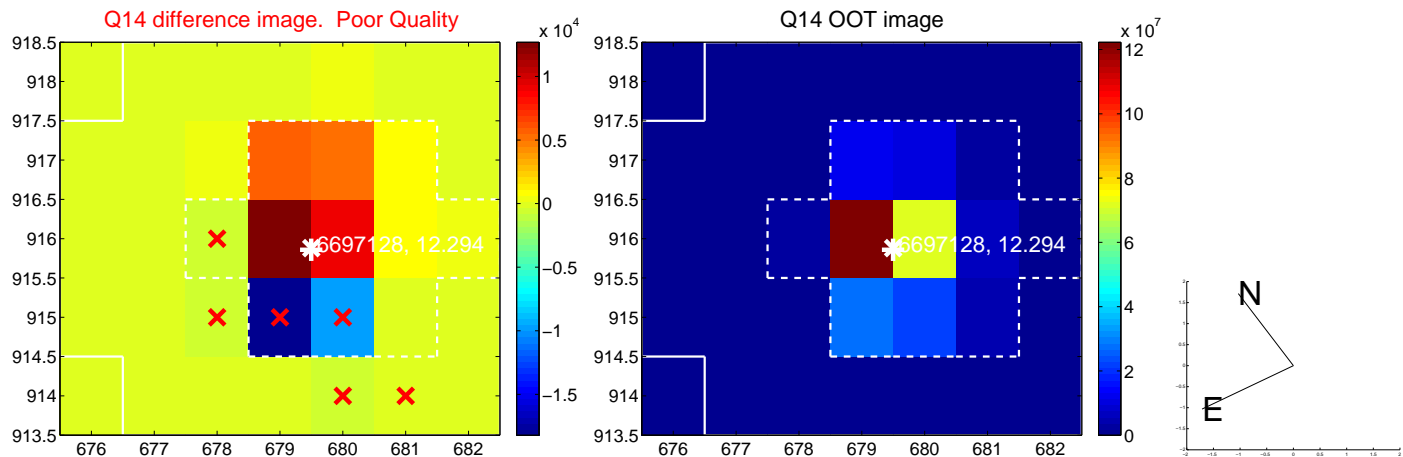
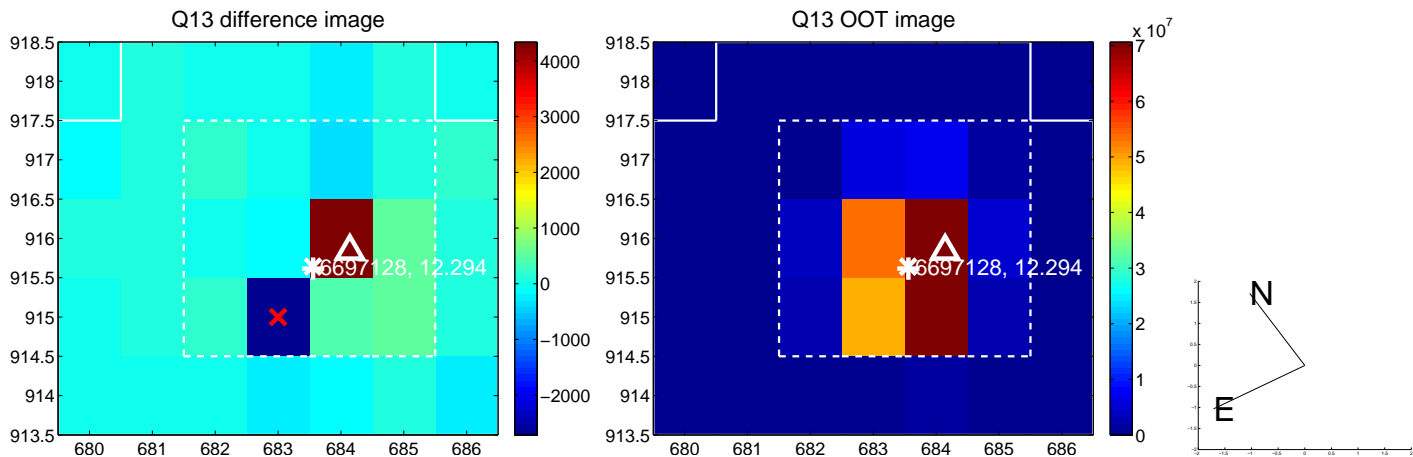
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



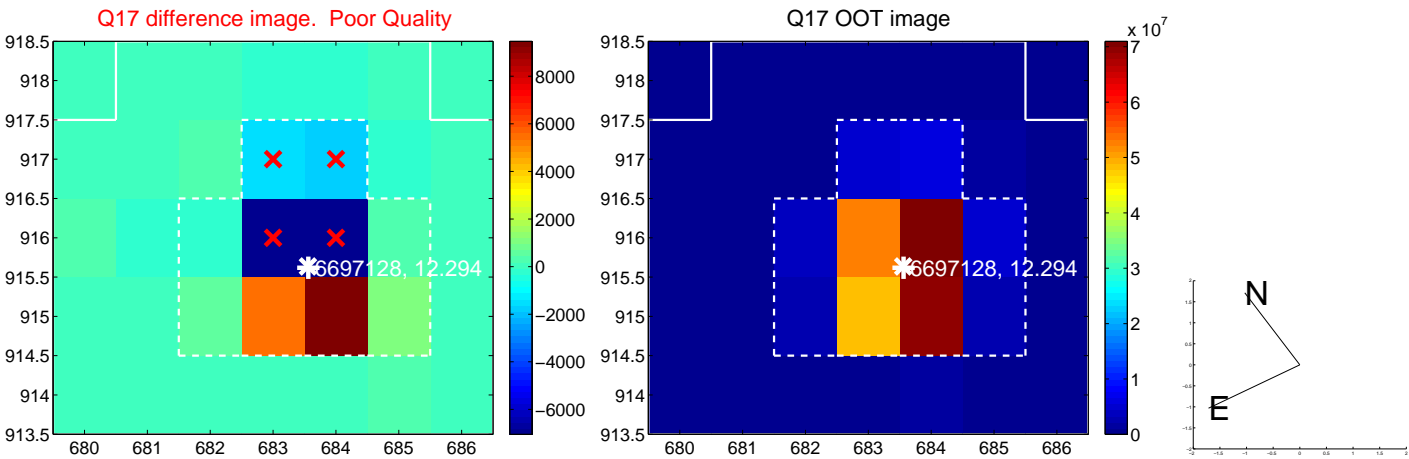
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



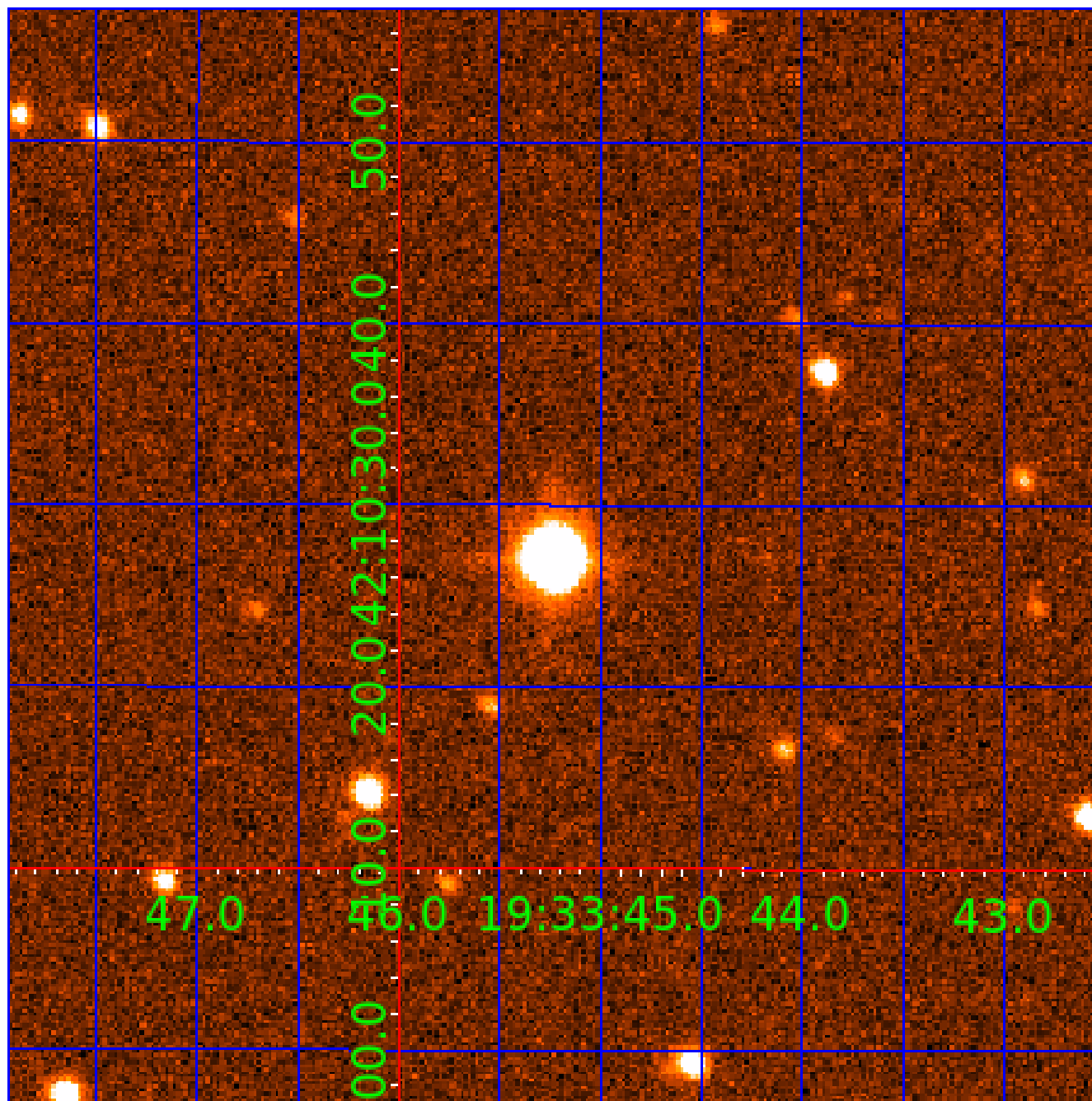
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

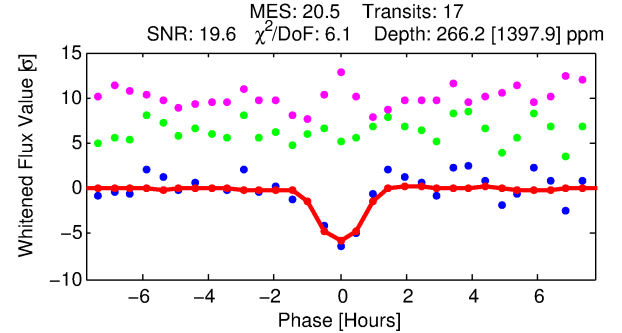
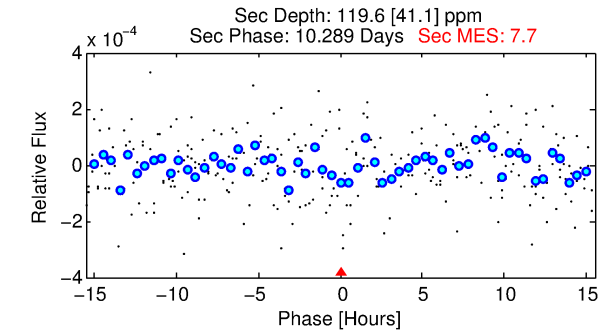
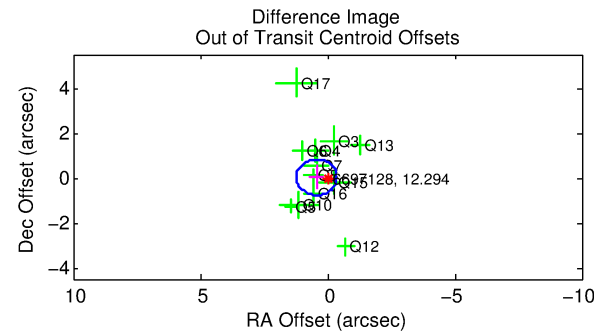
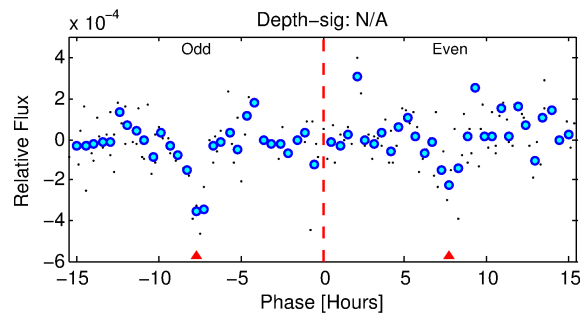
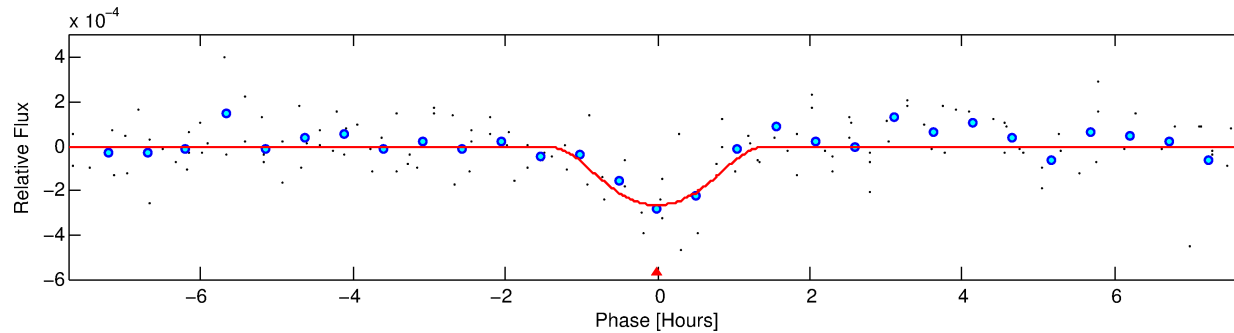
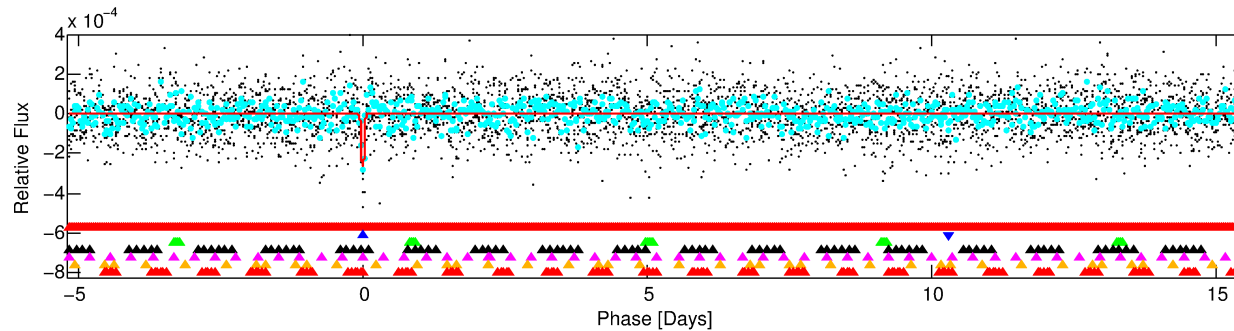
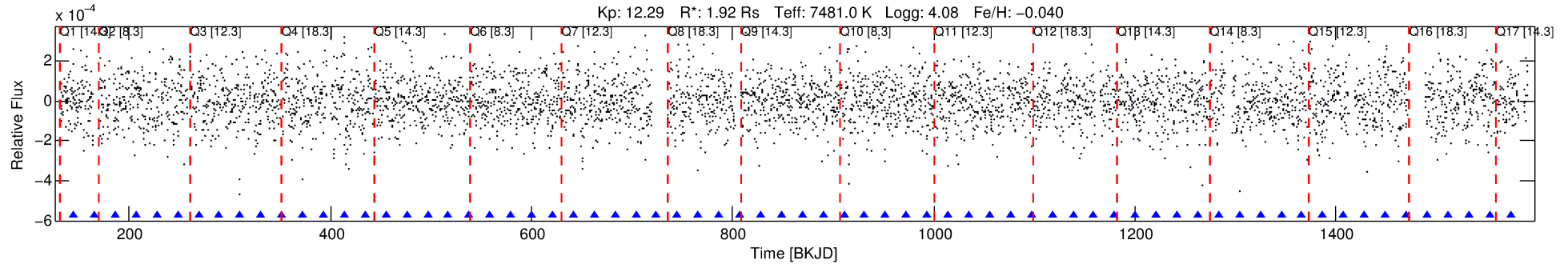
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-02

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 2 of 7 Period: 20.702 d



DV Fit Results:

Period = 20.70199 [0.00024] d
Epoch = 144.7998 [0.0077] BKJD
Rp/R* = 0.0288 [0.1735]
a/R* = 14.86 [24.31]
b = 1.00 [0.36]
Seff = 342.58 [84.31]
Teq = 1097 [67] K
Rp = 6.04 [36.34] Re
a = 0.1737 [0.0288] AU
Ag = 54.46 [655.81] [0.08σ]
Teffp = 4608 [13868] K [0.25σ]

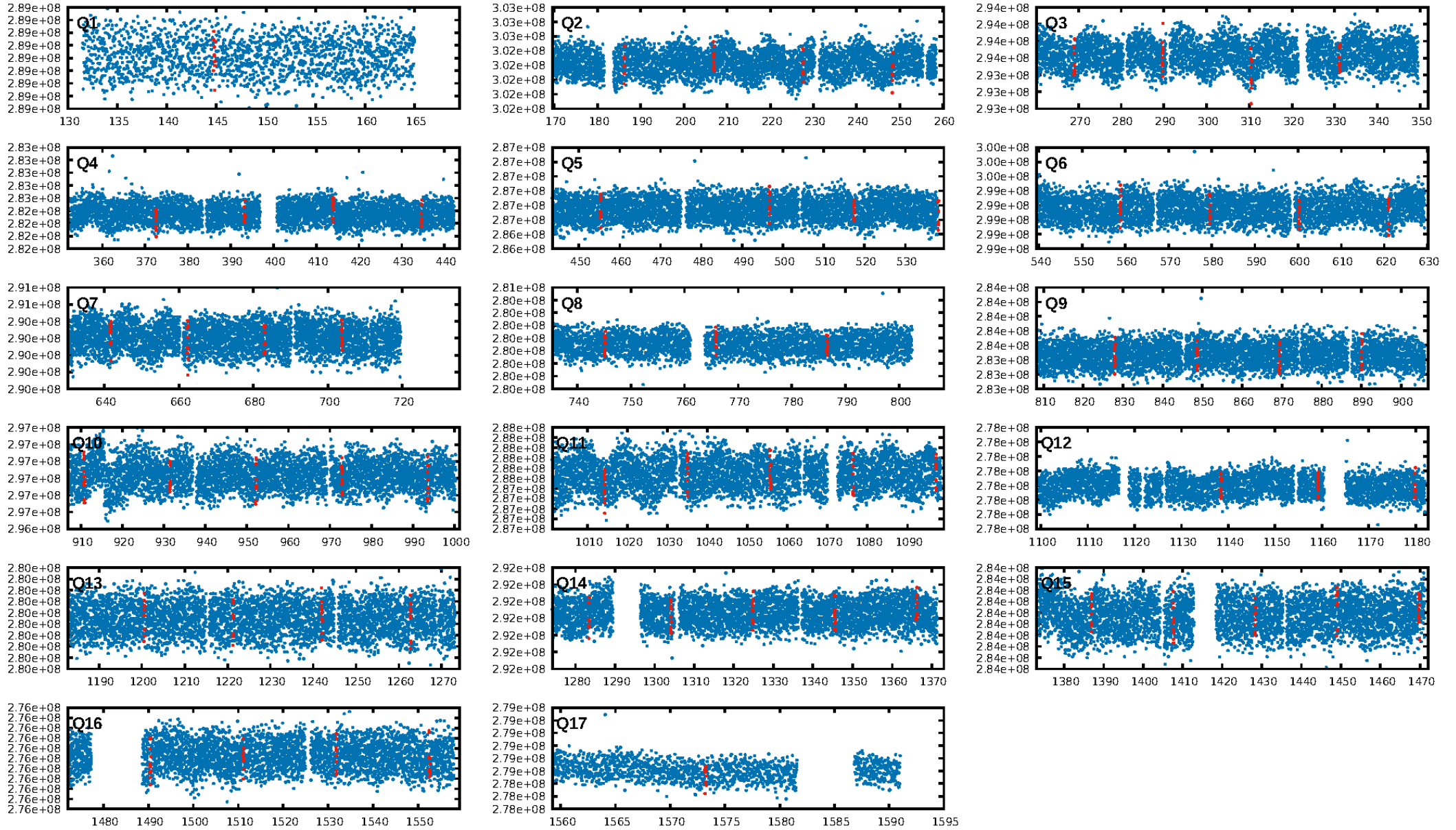
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [32.59σ]
LongPeriod-sig: 100.0% [24.66σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 3.3%
Bootstrap-pfa: 2.76e-18
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: 0.796
Centroid-sig: 6.2%
Centroid-so: 0.506 arcsec [1.79σ]
OotOffset-rm: 0.438 arcsec [1.65σ]
KicOffset-rm: 0.515 arcsec [1.93σ]
OotOffset-st: 2/3/4/3 [12]
KicOffset-st: 2/3/4/3 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 0.00 [0/17]

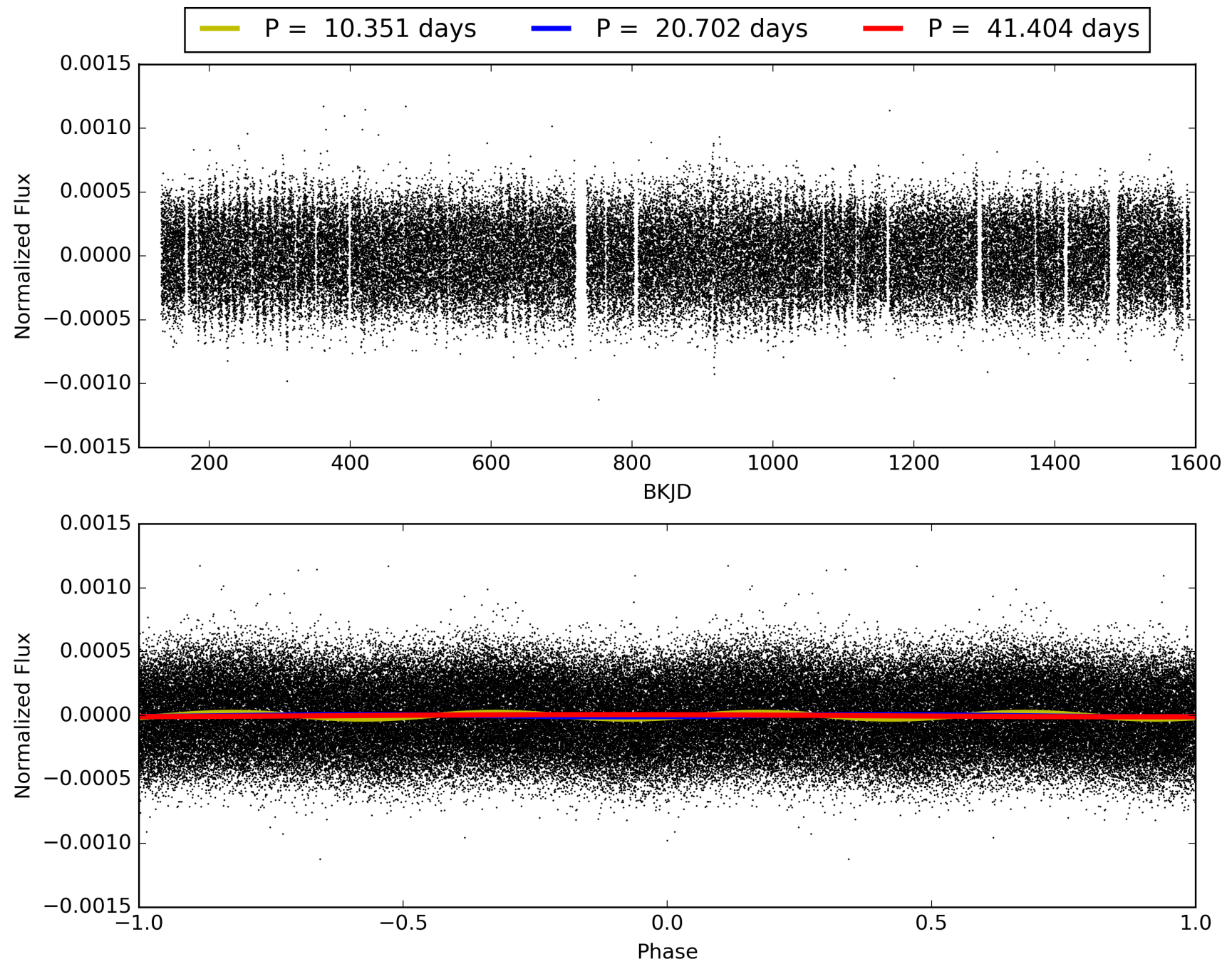
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:34:54 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-02, PDC Light Curves

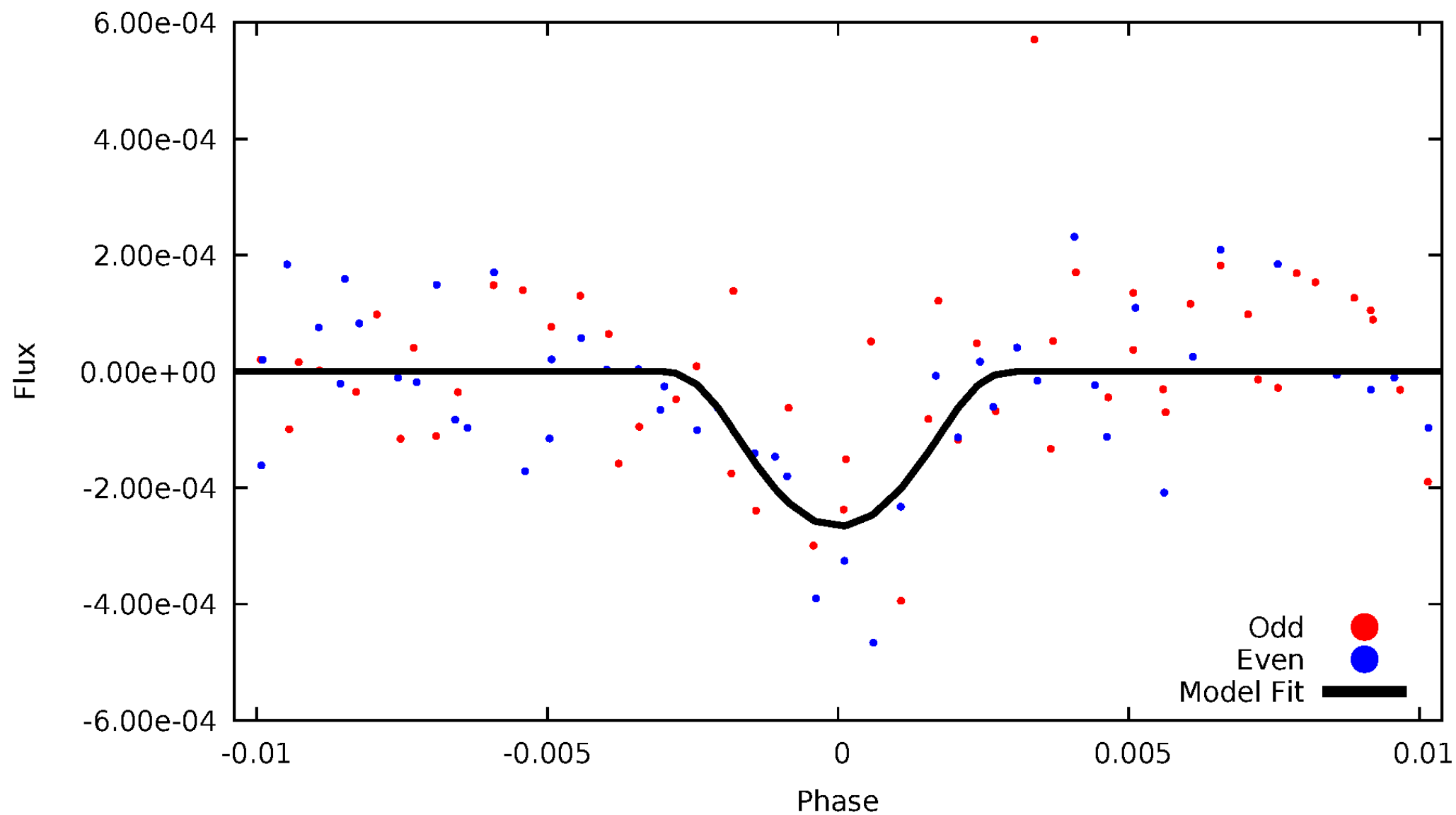


TCE 006697128-02



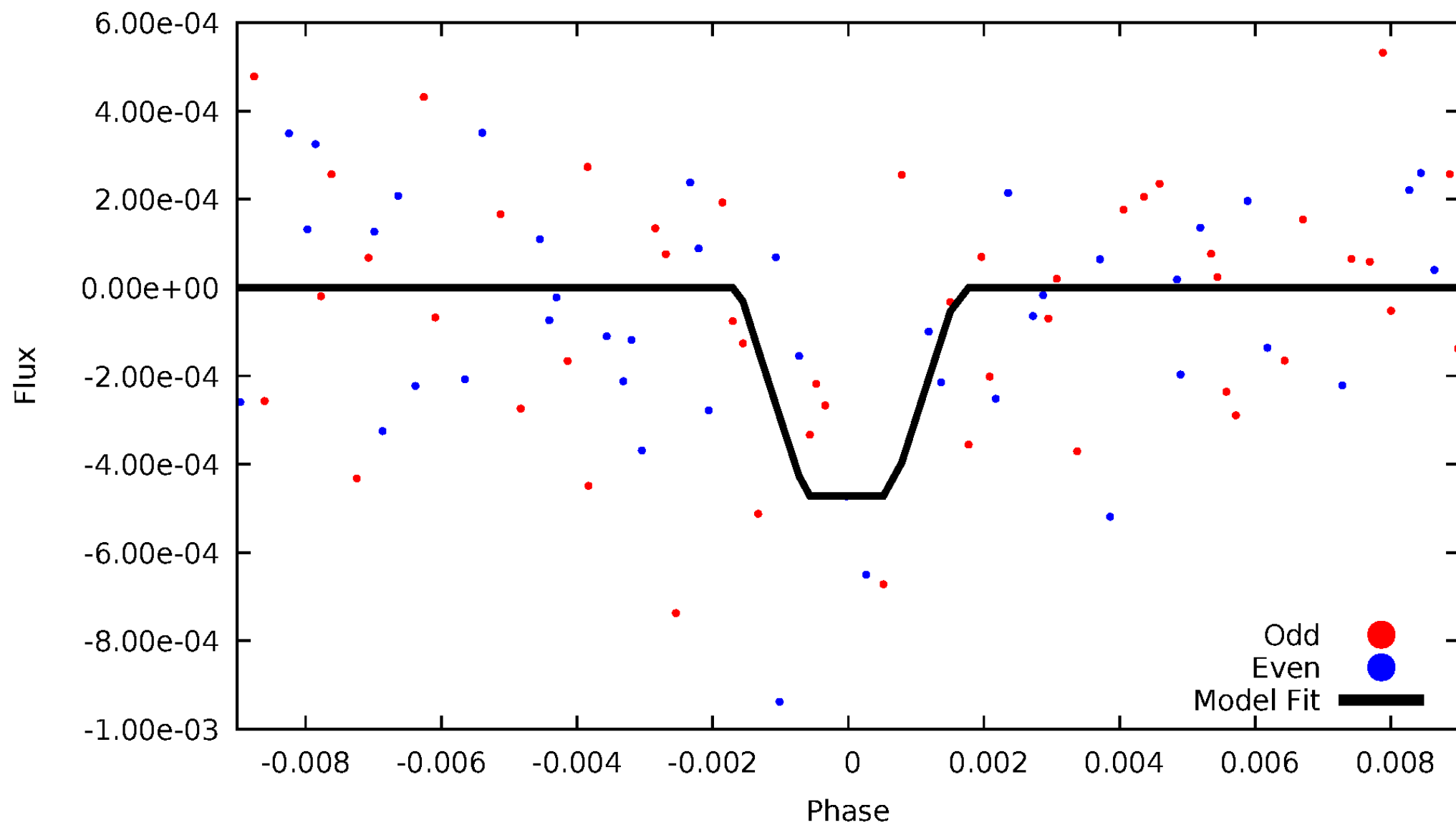
DV Odd/Even

TCE 006697128-02



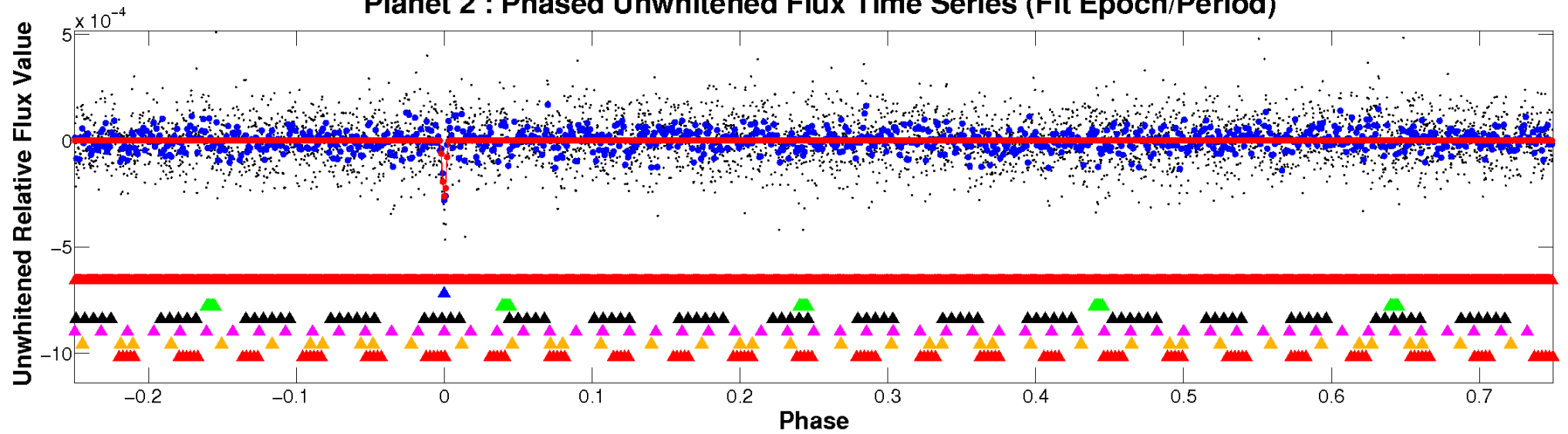
ALT Odd/Even

TCE 006697128-02

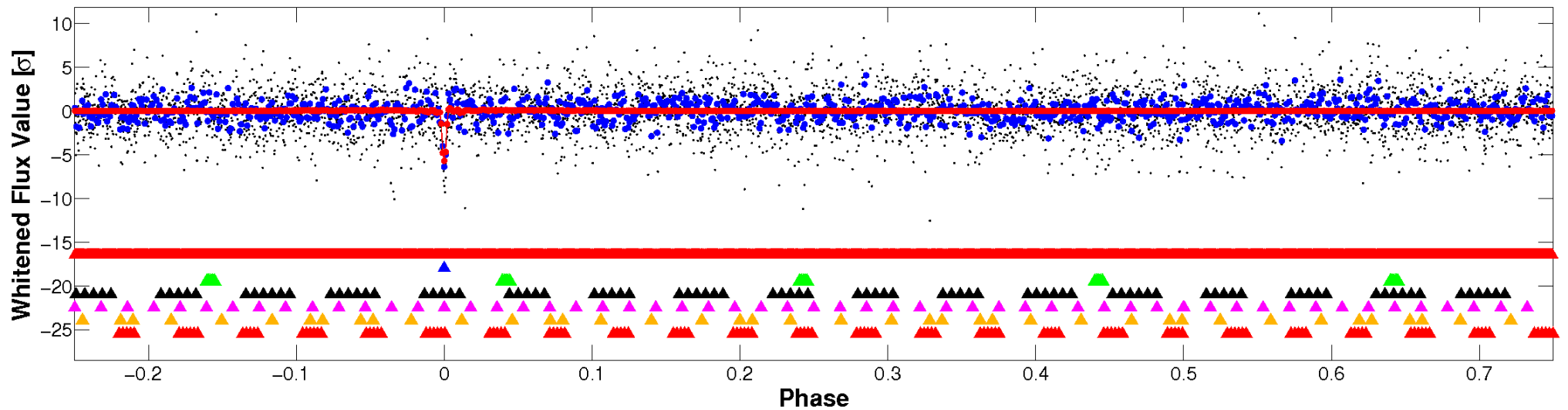


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

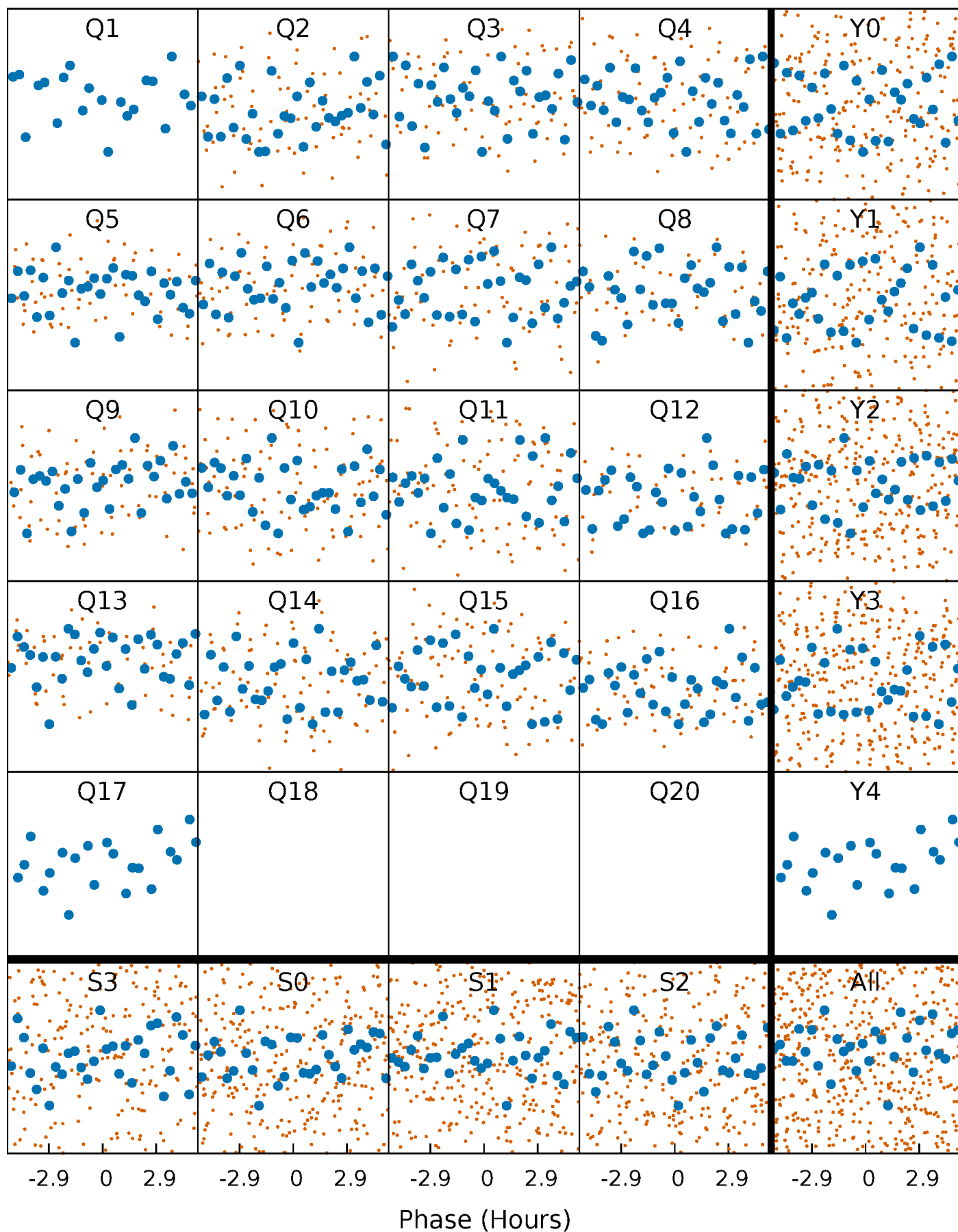


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



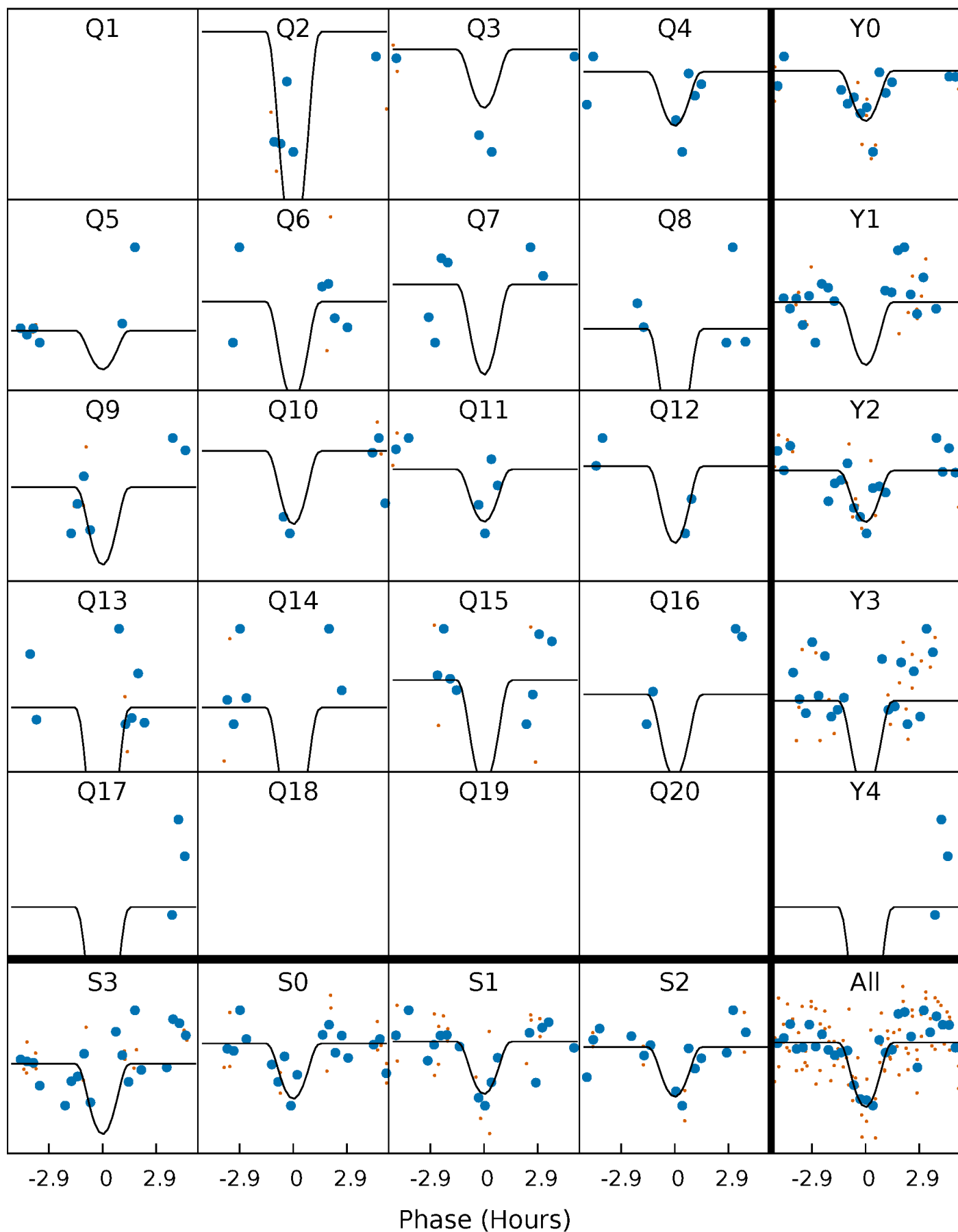
PDC Quarter-Phased Transit Curves

TCE 006697128-02 P= 20.701992 Days $T_0=144.799761$ (BKJD)



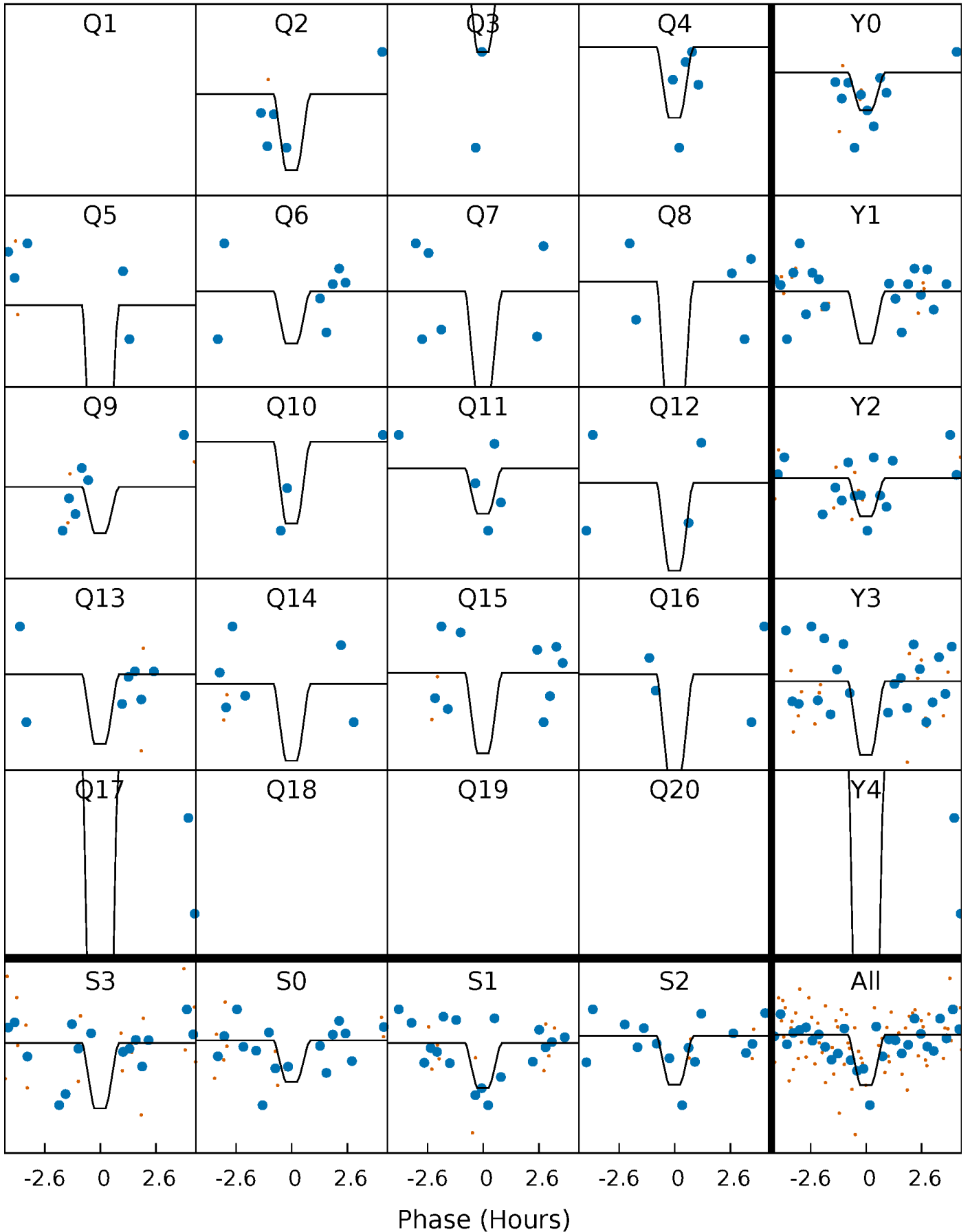
DV Quarter-Phased Transit Curves

TCE 006697128-02 P= 20.701992 Days $T_0=144.799761$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

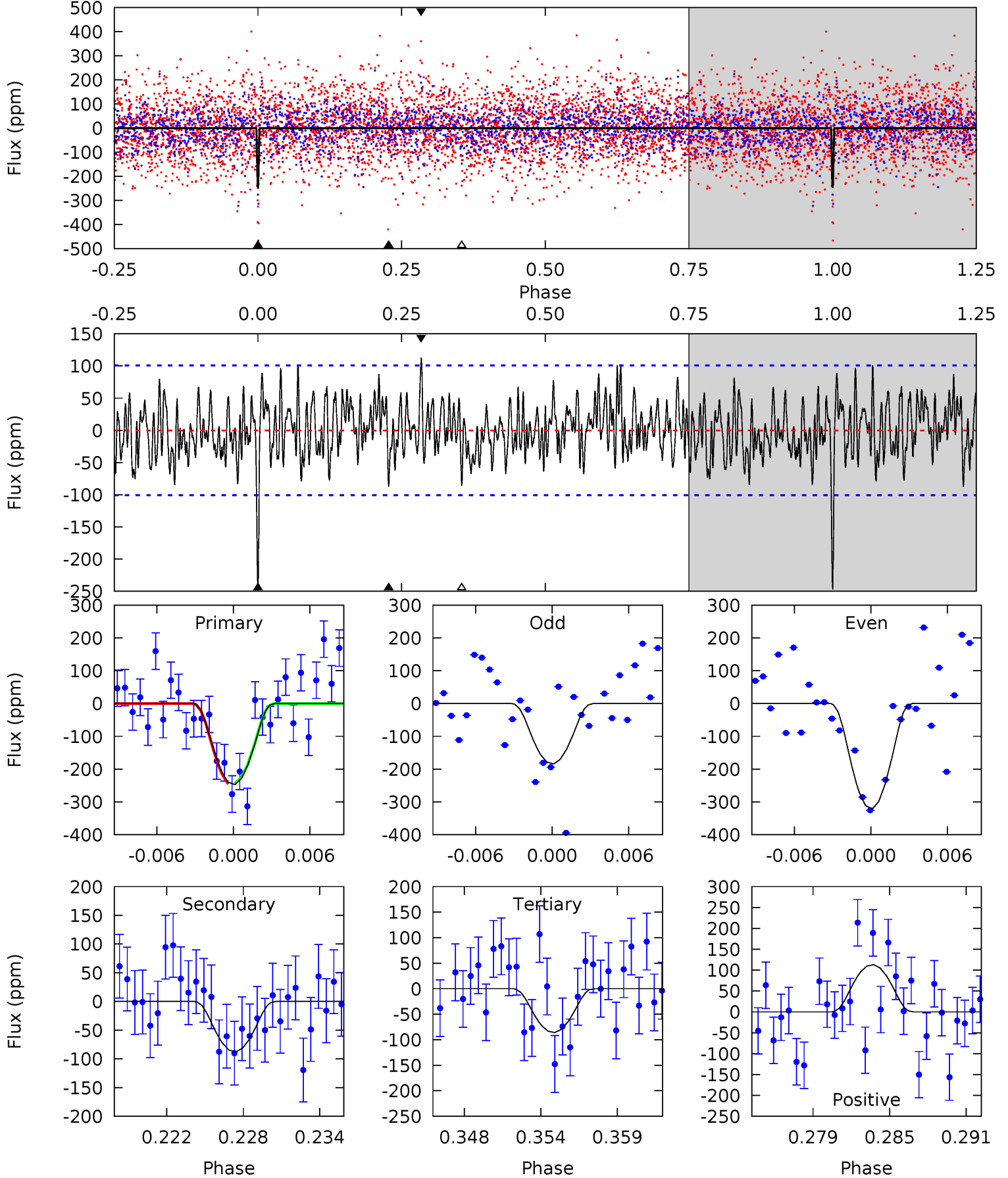
TCE 006697128-02 P= 20.701514 Days $T_0=144.816724$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-02, P = 20.701992 Days, E = 124.097769 Days

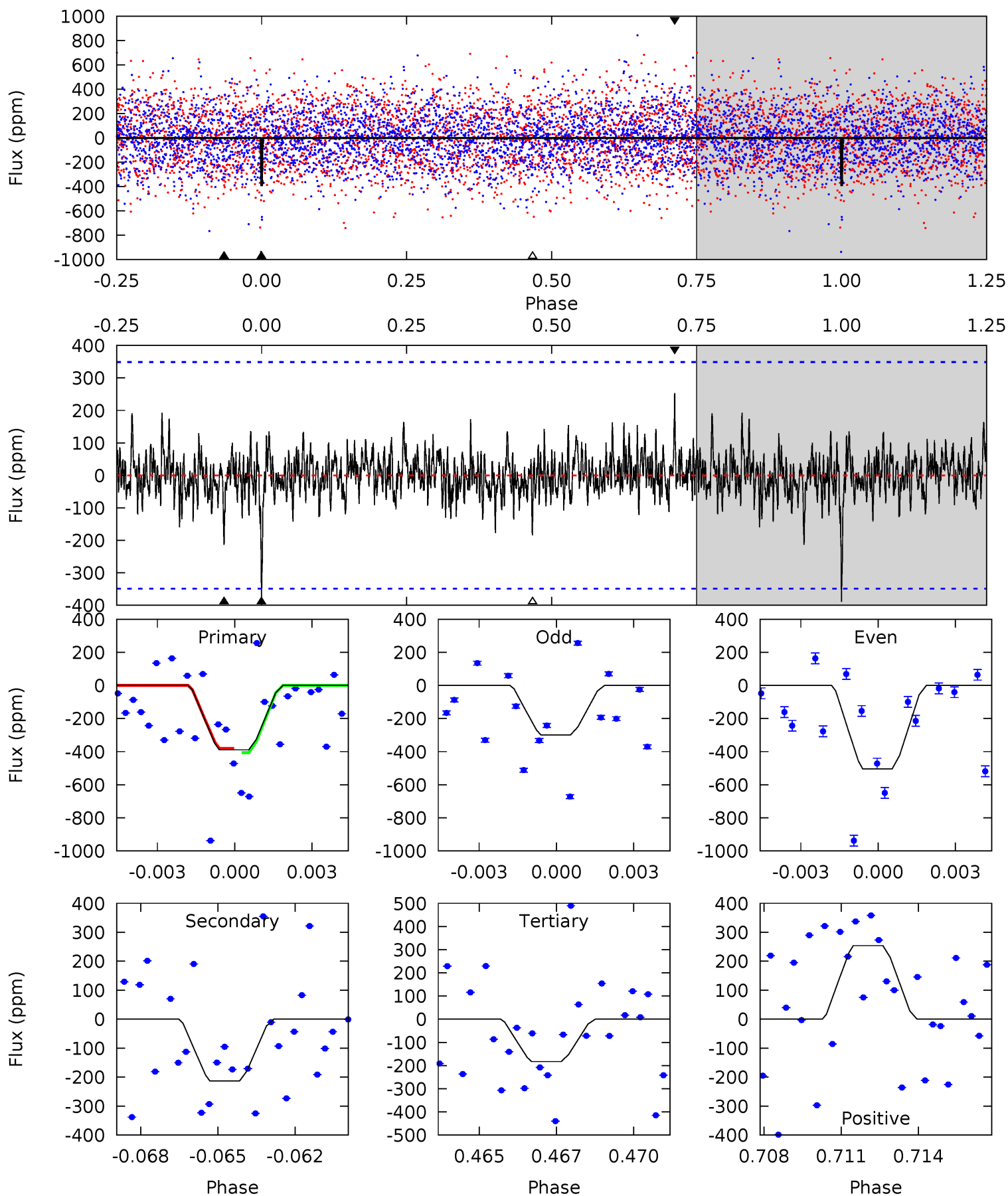
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	4.46	4.37	5.75	5.13	2.76	1.77	8.21	6.83	0.09	-1.30	3.47	0.63	0.31	0.05



Alt Model-Shift Uniqueness Test

006697128-02, P = 20.701514 Days, E = 124.115210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.87	3.22	2.76	3.83	5.26	2.99	0.82	3.11	2.04	0.46	-0.61	1.52	1.09	0.39	0.20



Stellar Parameters For KIC 006697128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-88 ± 20	$26.79^{+28.67}_{-18.91}$	1539^{+77}_{-64}	2687^{+1261}_{-638}	$1.994^{+19.769}_{-1.535}$
Alt.	-213 ± 66	$25.09^{+27.62}_{-17.93}$	1535^{+75}_{-62}	3144^{+1762}_{-657}	$5.621^{+64.183}_{-4.454}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

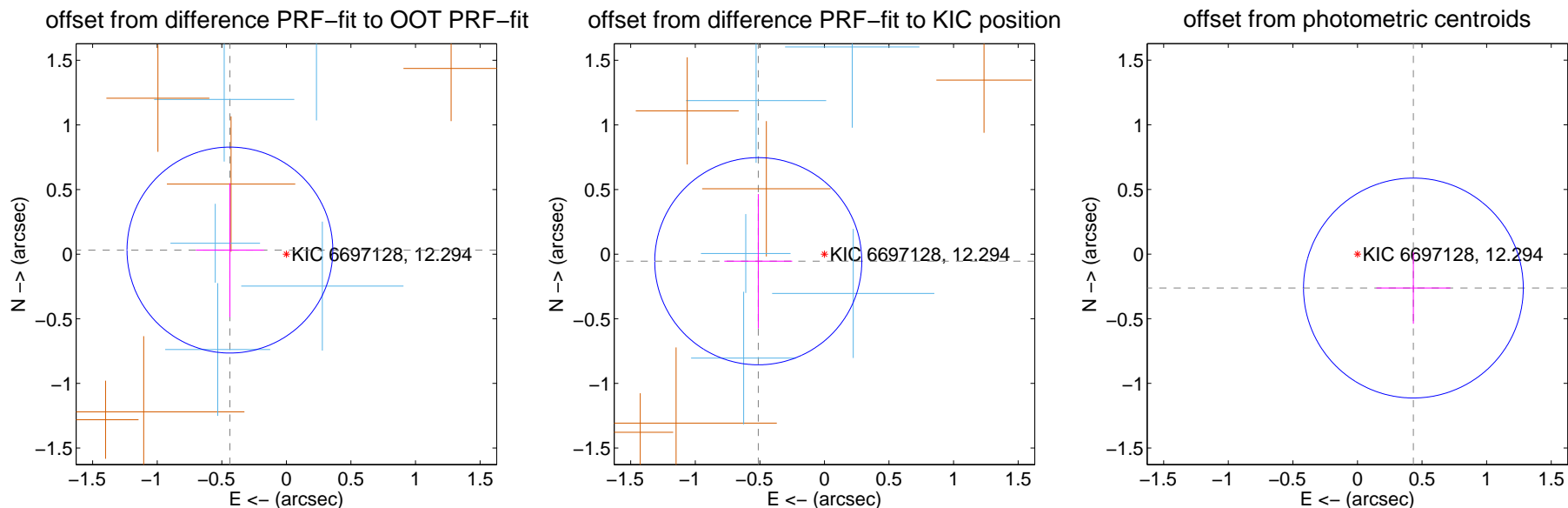
DV Centroid Data

Supplemental centroid analysis for 006697128-02. Kepler magnitude: 12.29. Transit SNR 19.56

There are 6 quarters with good PRF difference image offsets

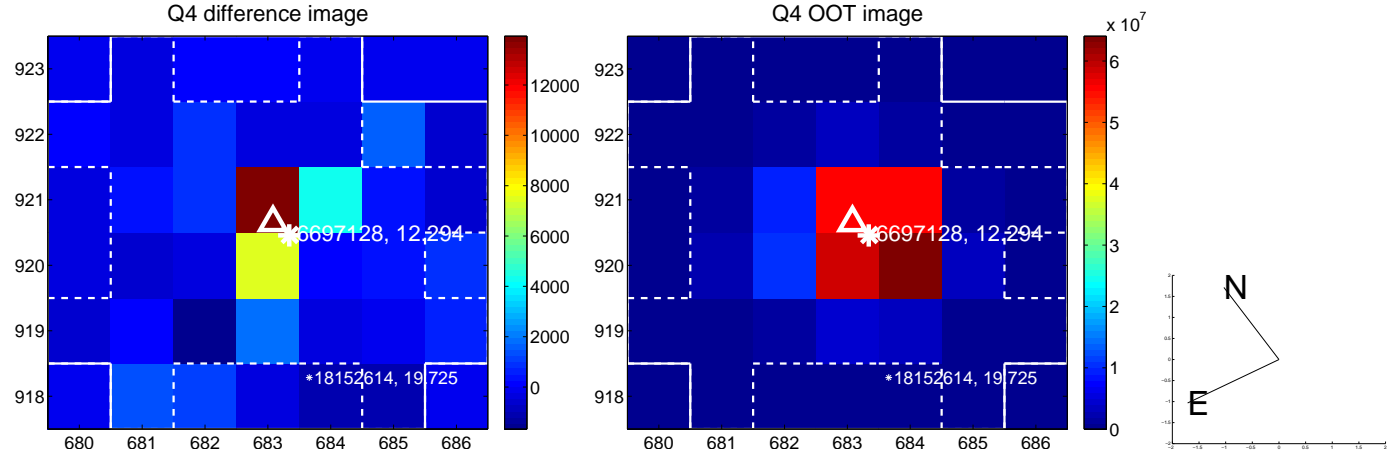
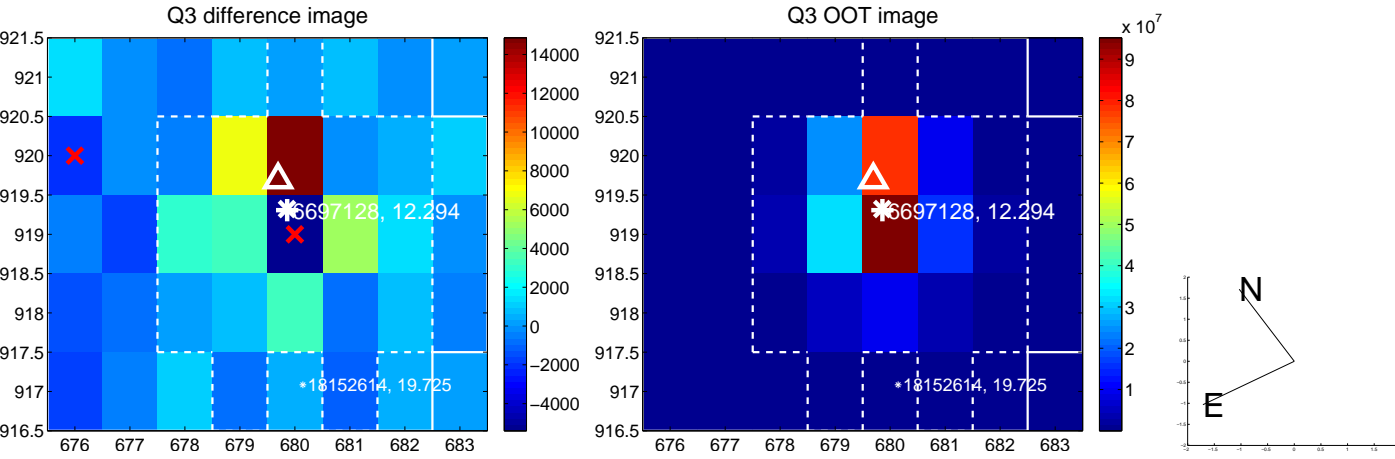
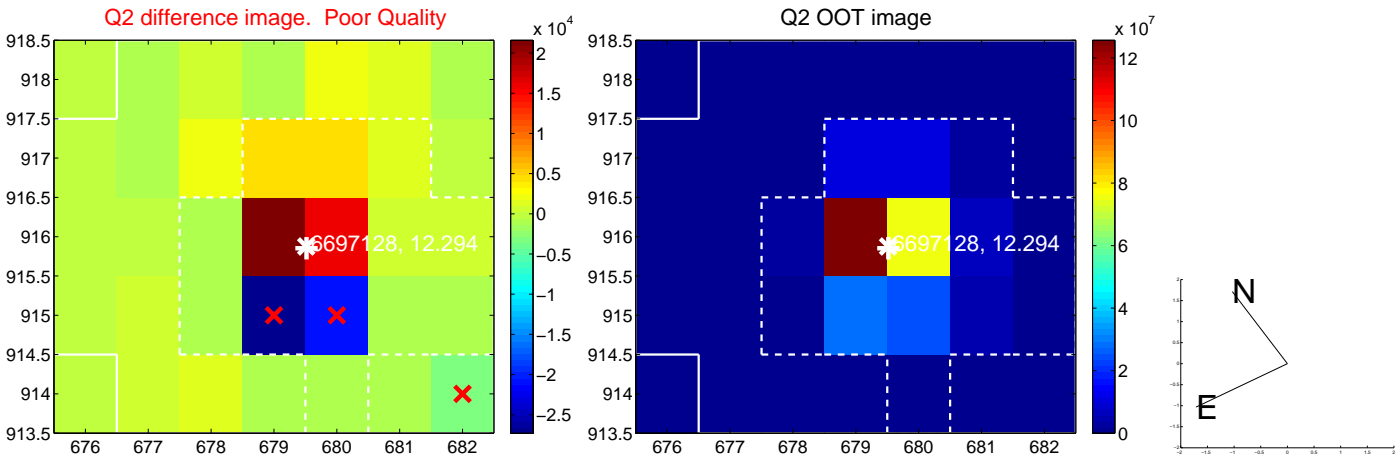
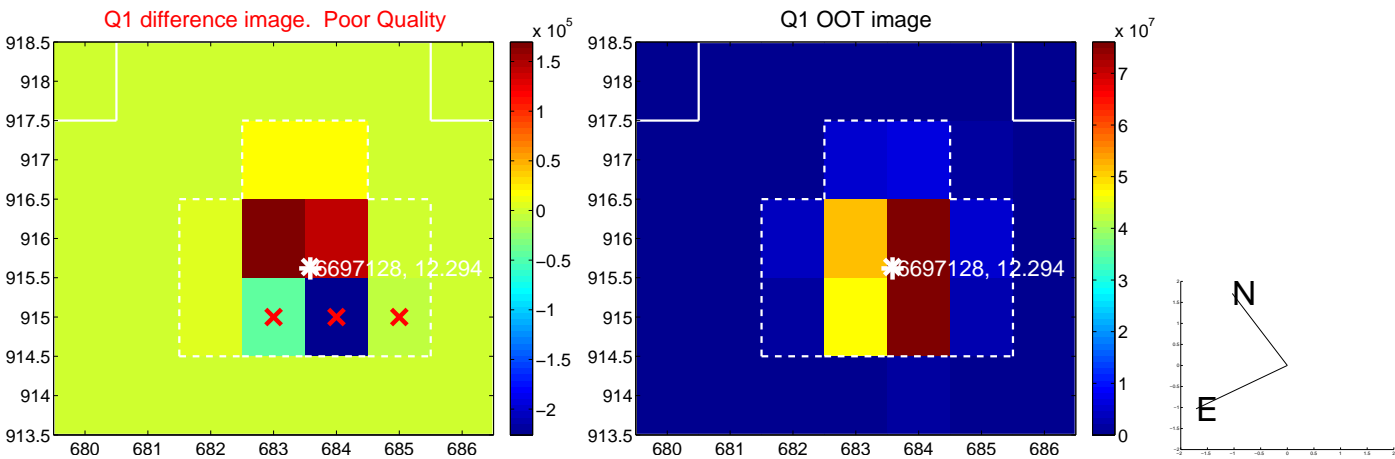
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.438 ± 0.266	1.65	0.437 ± 0.264	0.031 ± 0.518
PRF-fit source offset from KIC position	0.515 ± 0.267	1.93	0.512 ± 0.263	-0.055 ± 0.520
photometric centroid source offset	0.51 ± 0.28	1.79	-0.43 ± 0.29	-0.26 ± 0.28

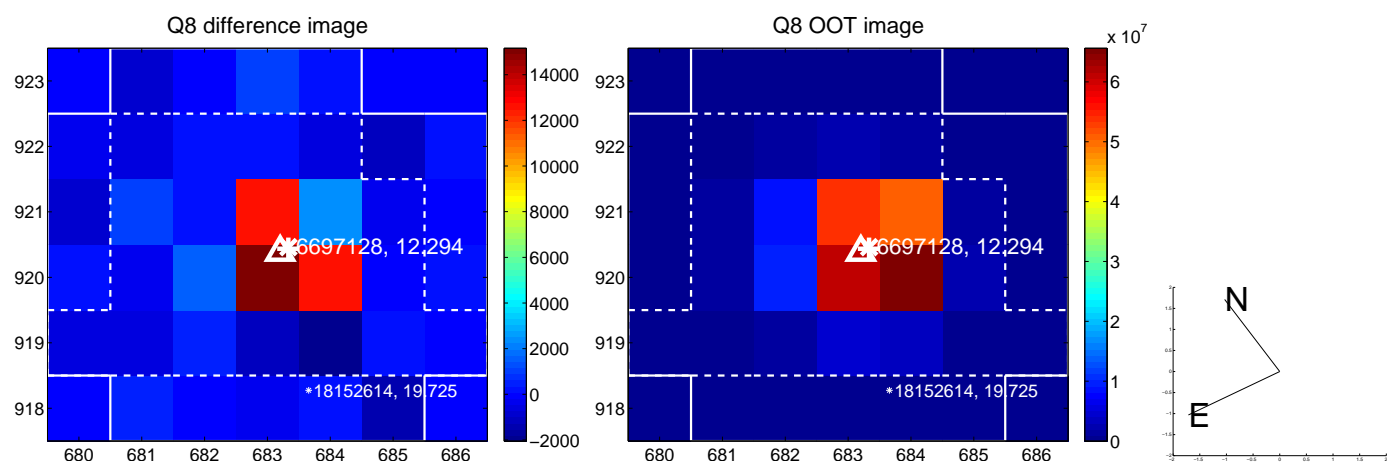
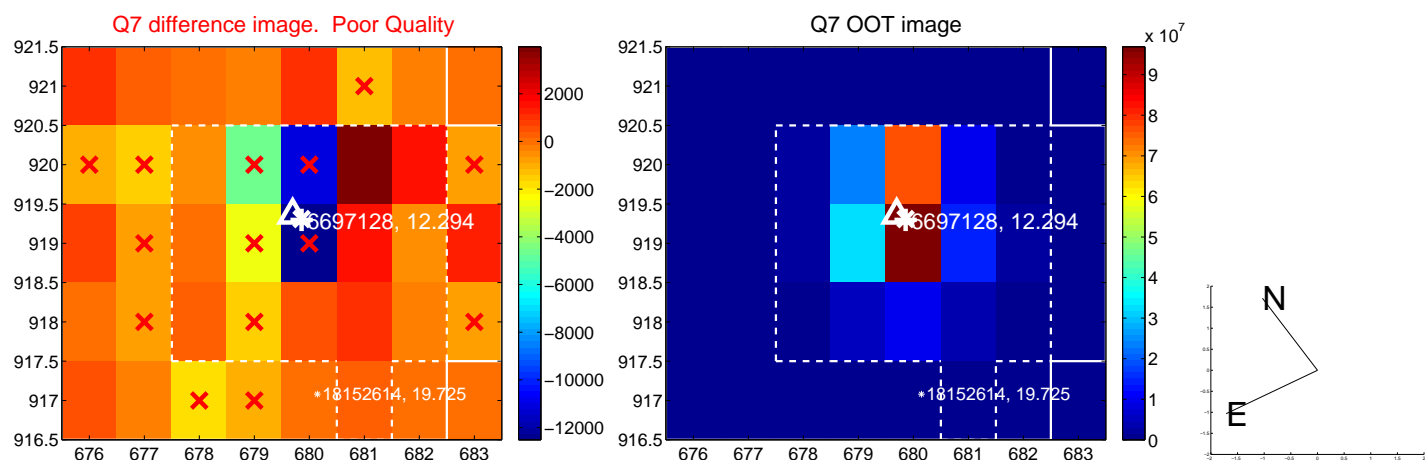
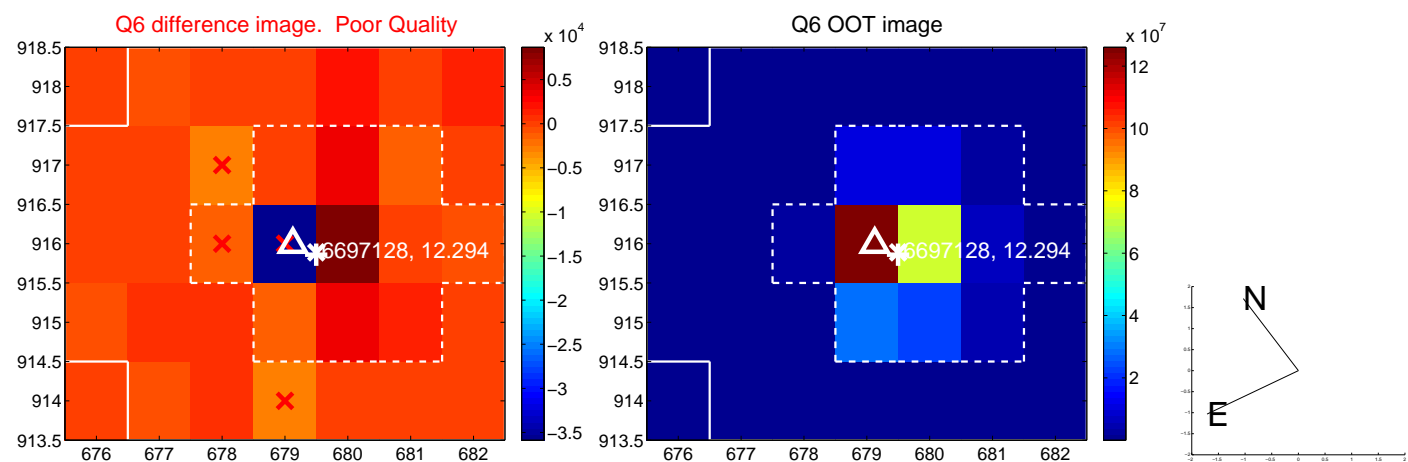
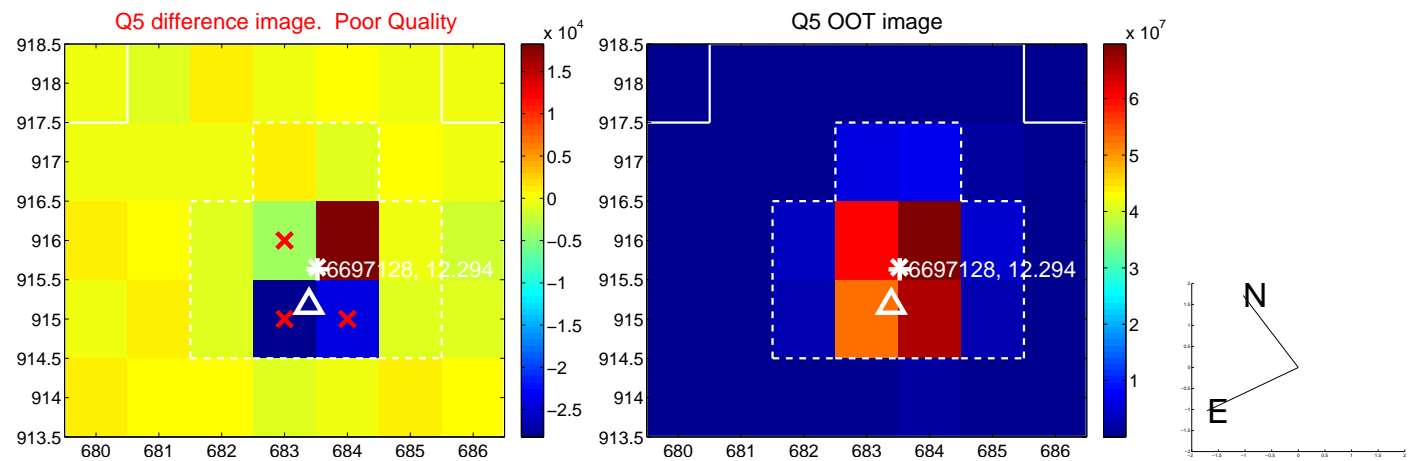


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

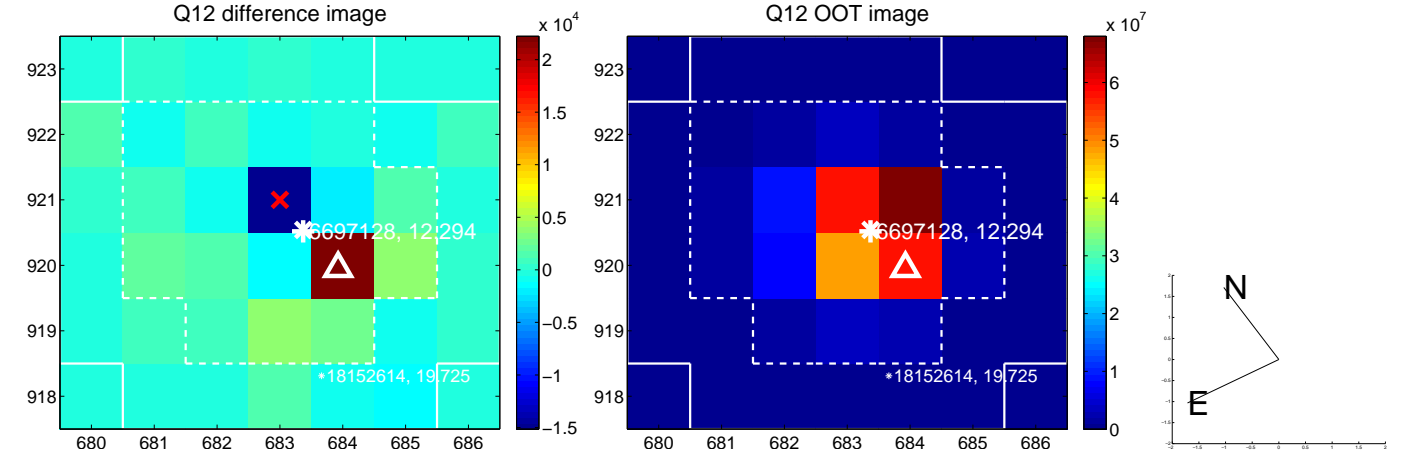
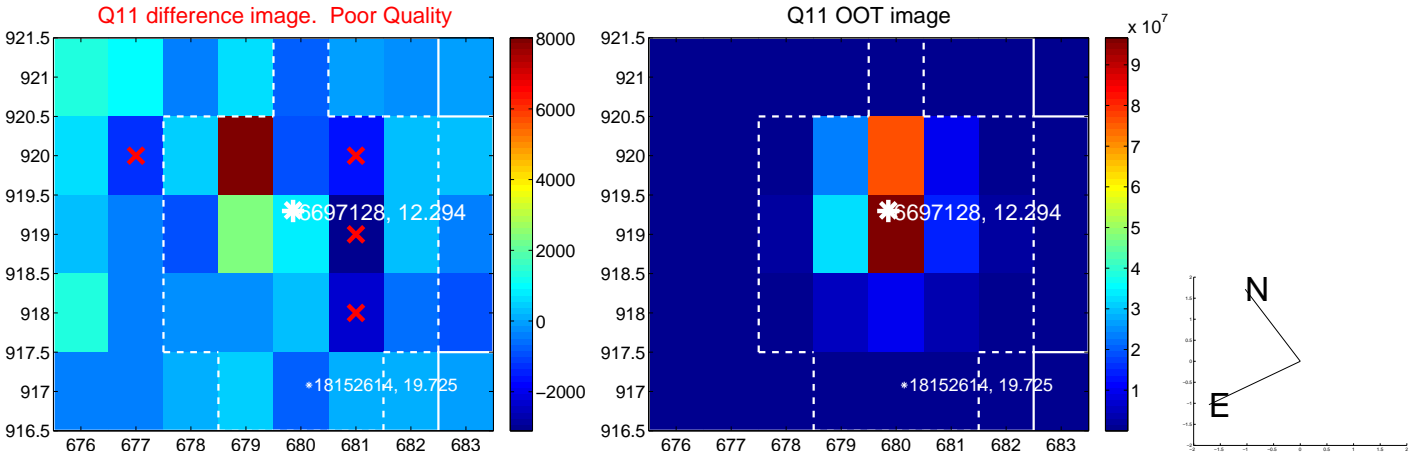
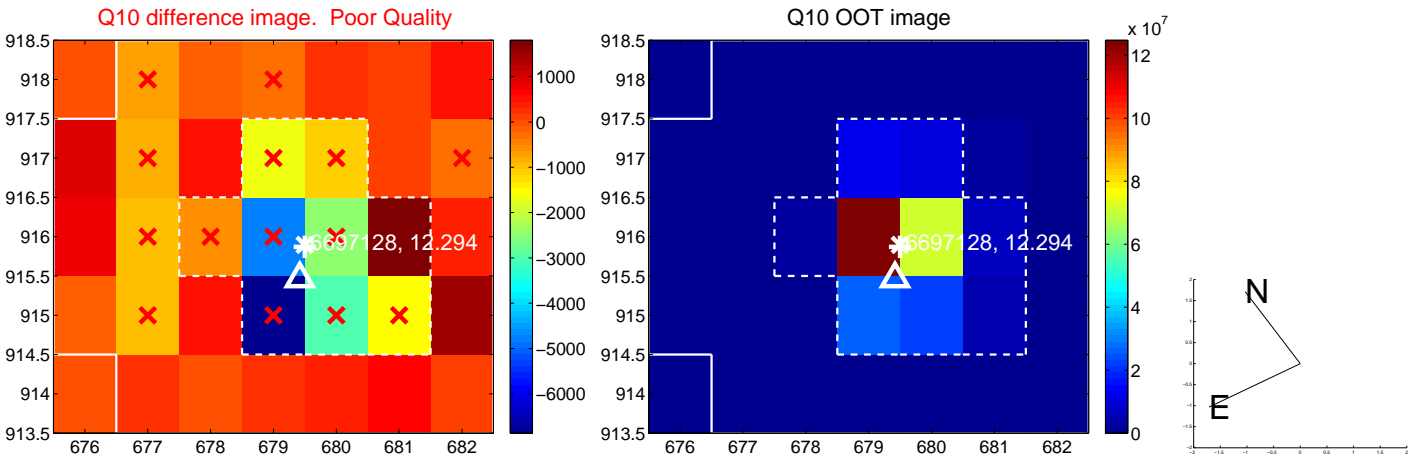
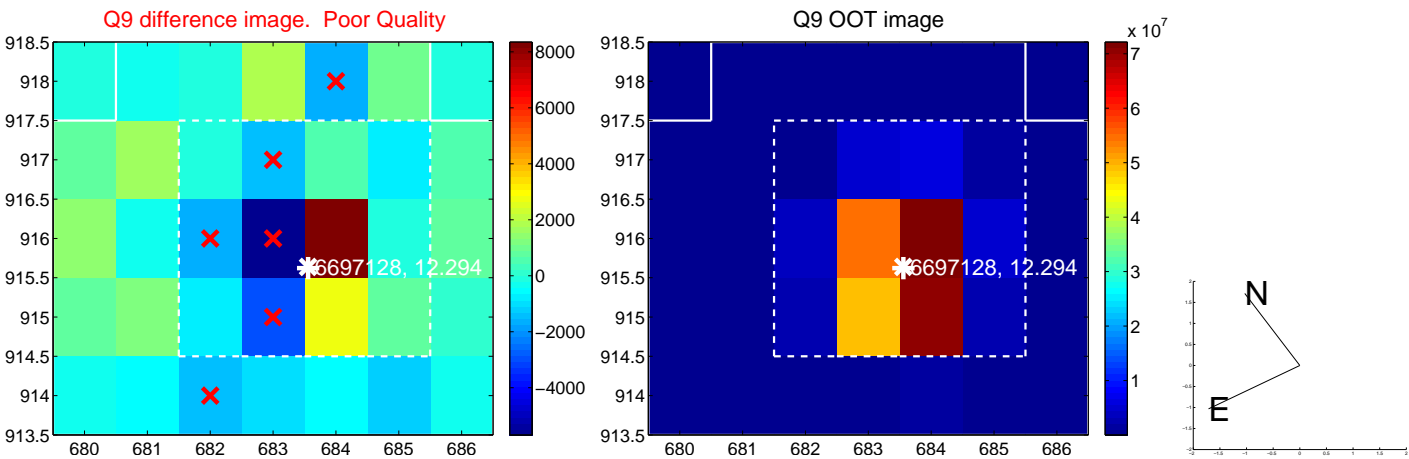
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



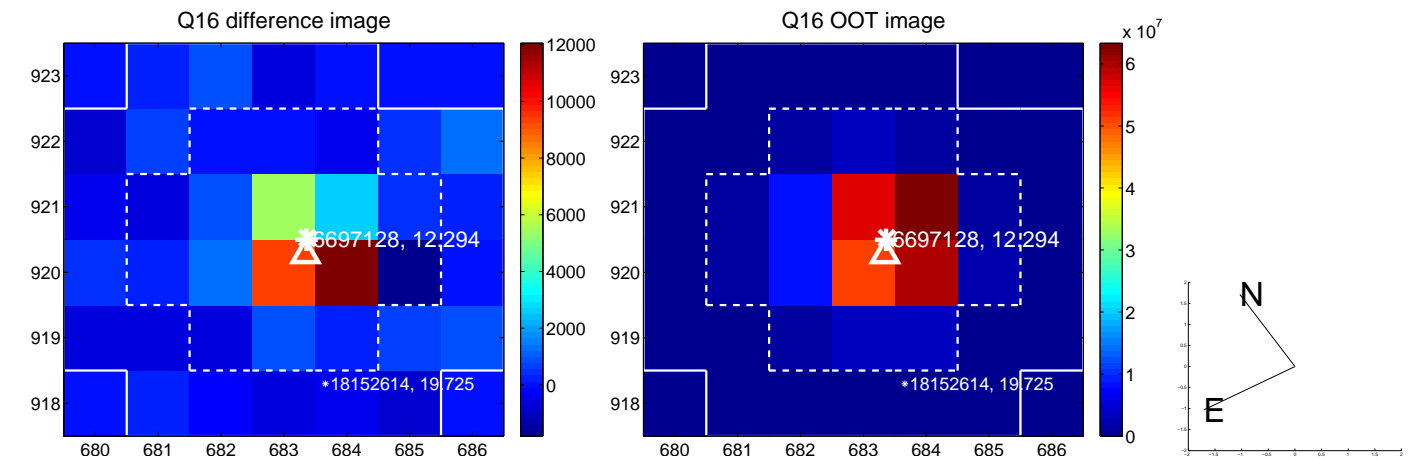
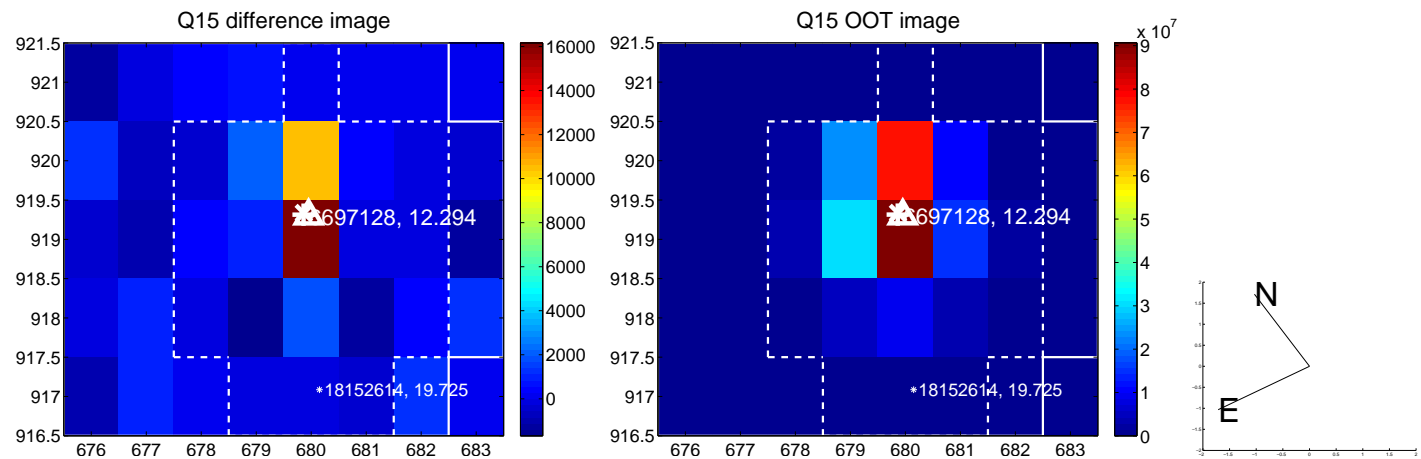
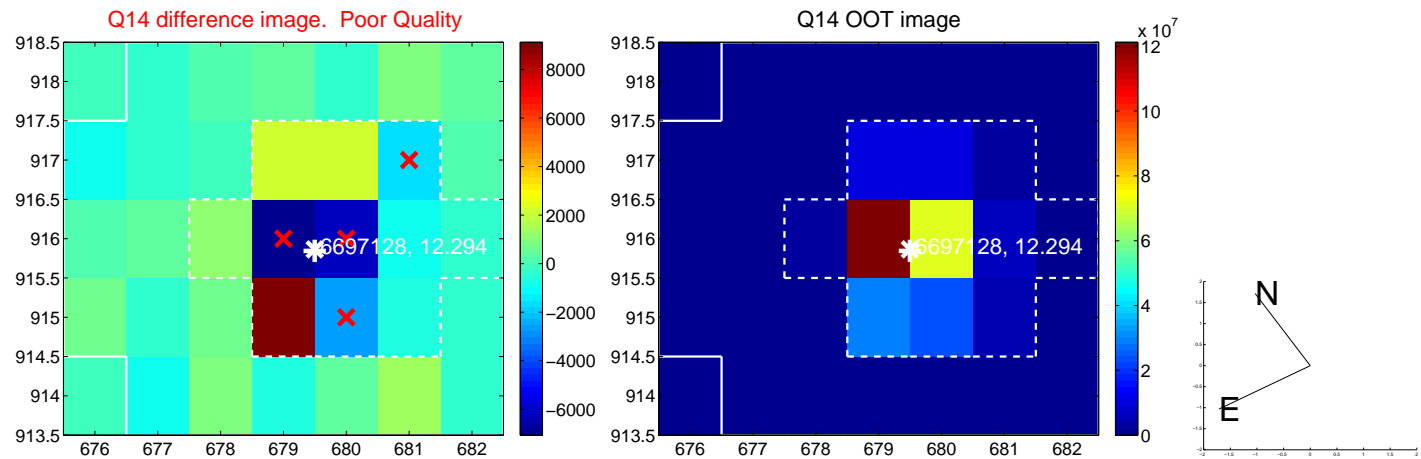
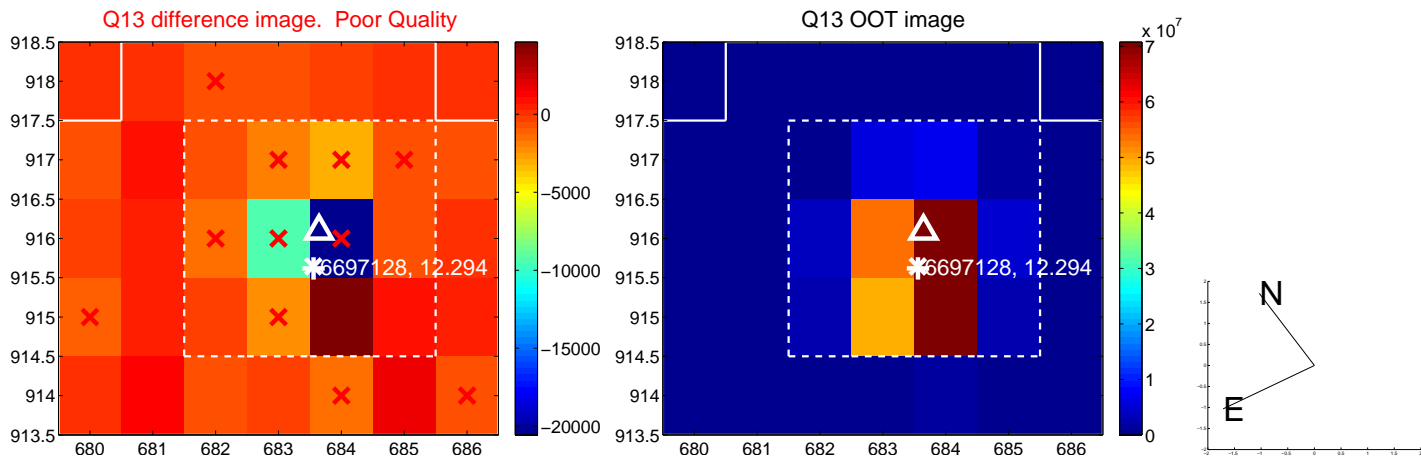
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



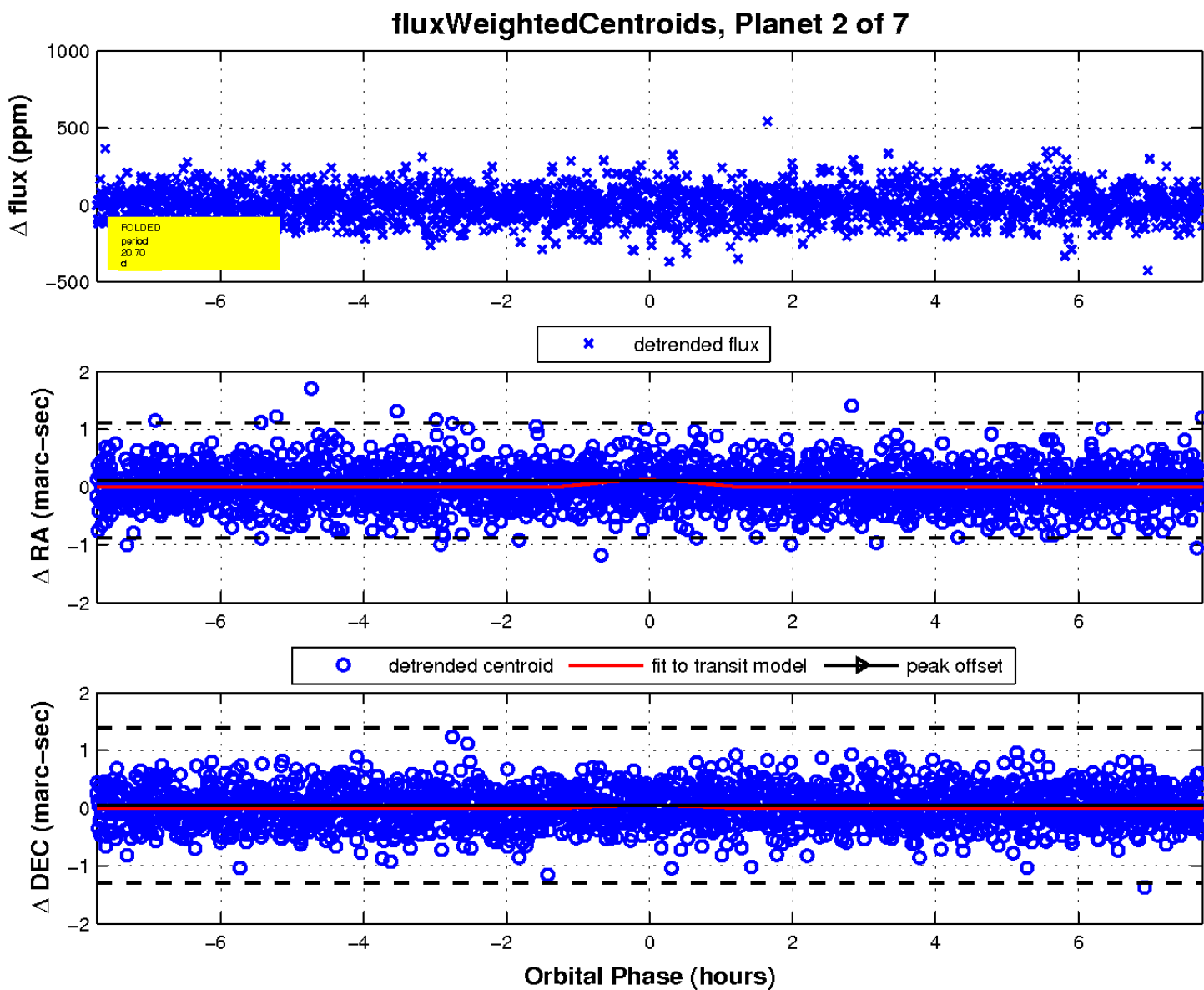
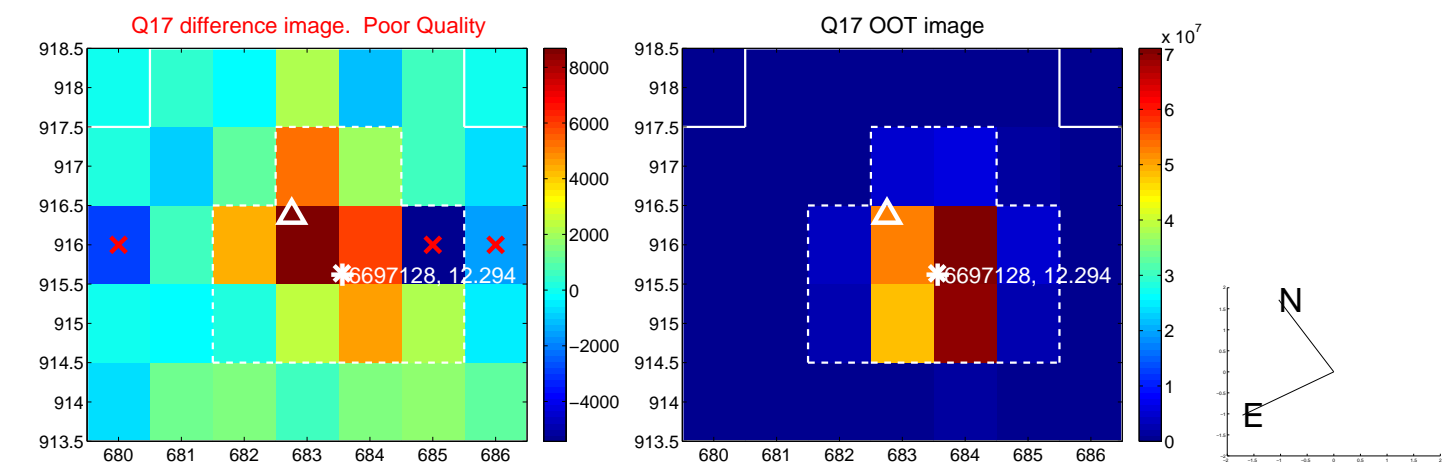
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

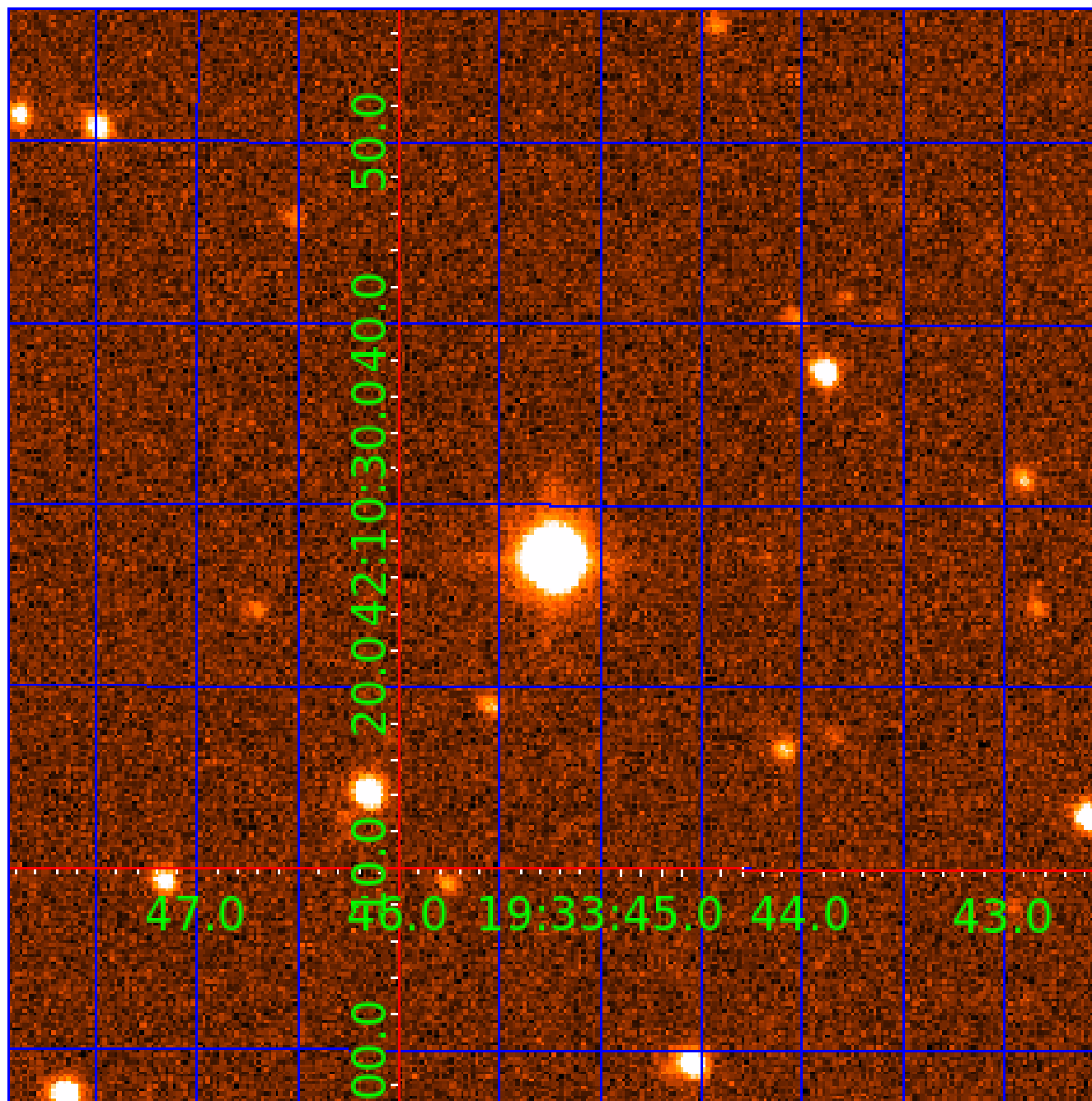


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

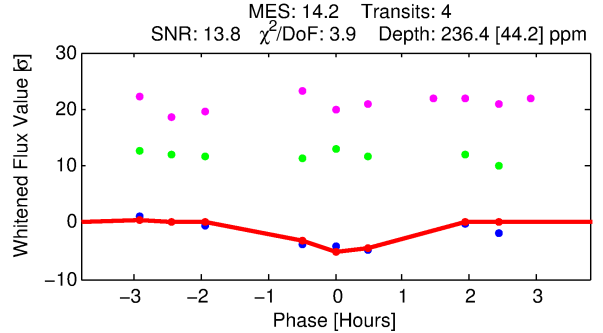
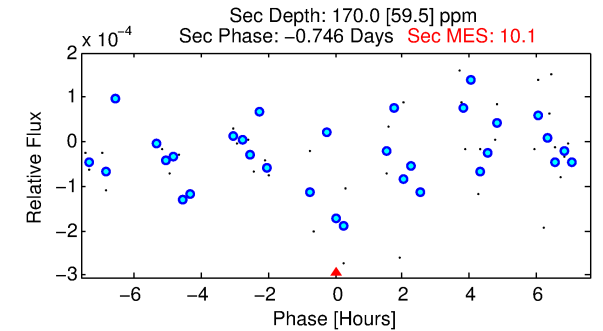
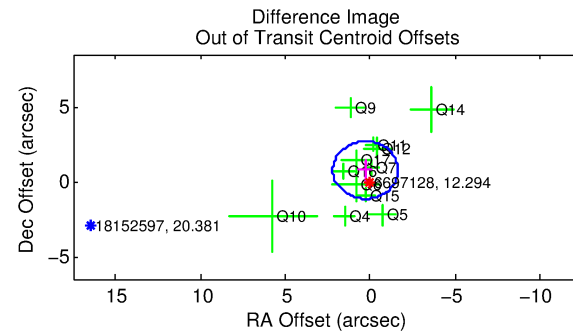
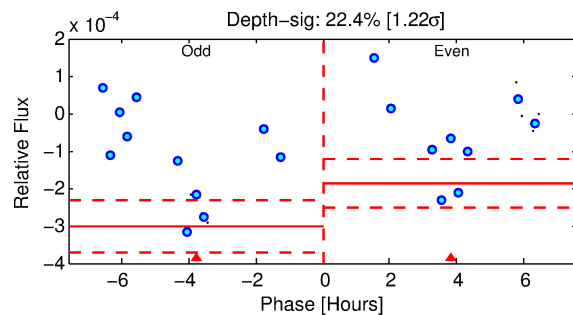
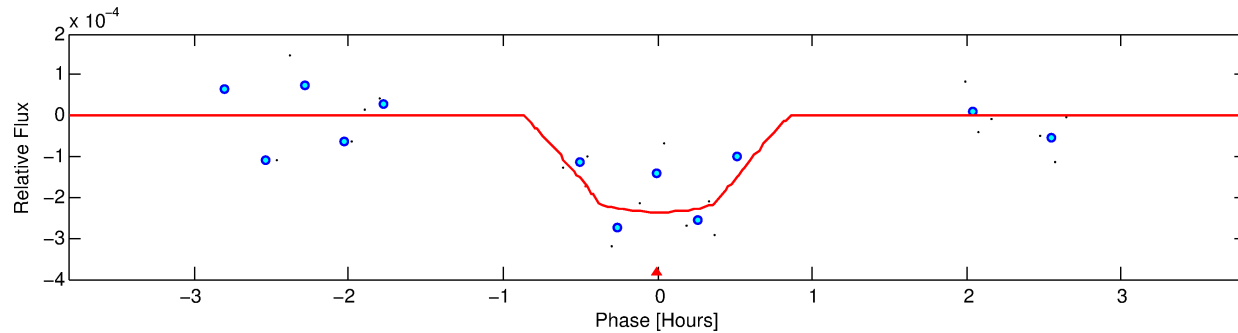
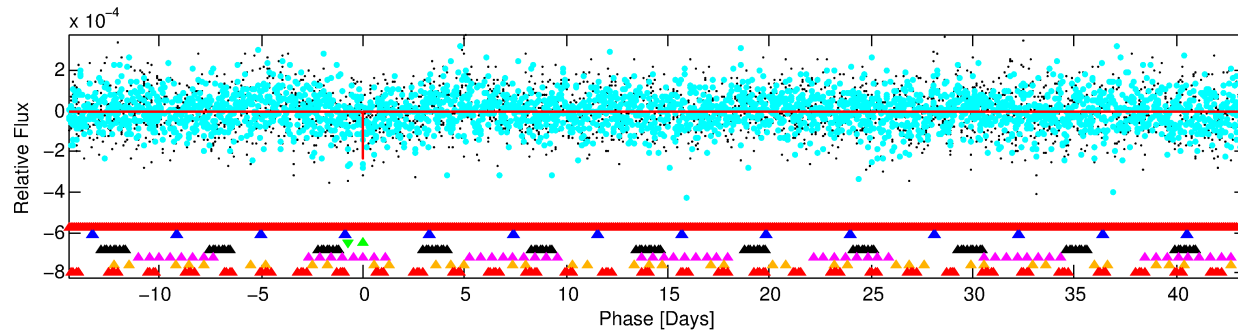
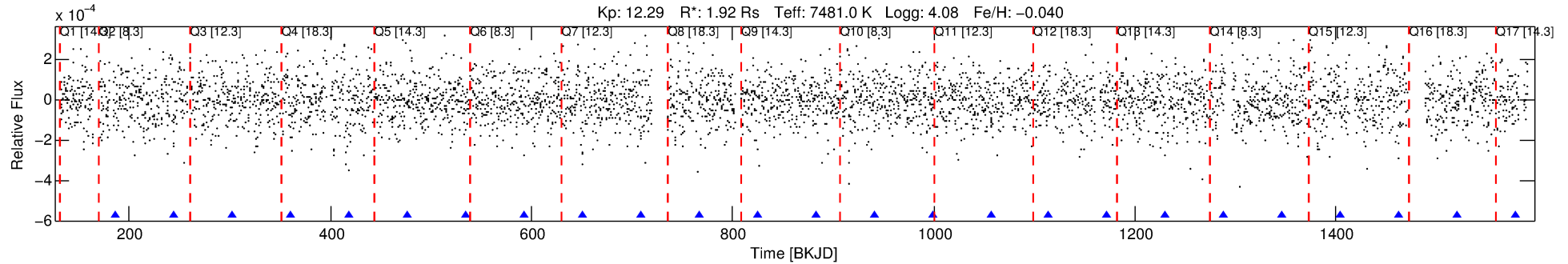
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-03

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 3 of 7 Period: 57.971 d



DV Fit Results:

Period = 57.97082 [0.00094] d
Epoch = 187.0176 [0.0190] BKJD
Rp/R* = 0.0146 [0.0304]
a/R* = 324.14 [4121.94]
b = 0.41 [26.36]
Seff = 86.80 [21.36]
Teq = 778 [48] K
Rp = 3.05 [6.39] Re
a = 0.3451 [0.0572] AU
Ag = 1195.14 [5008.94] [0.24σ]
Teffp = 7075 [7402] K [0.85σ]

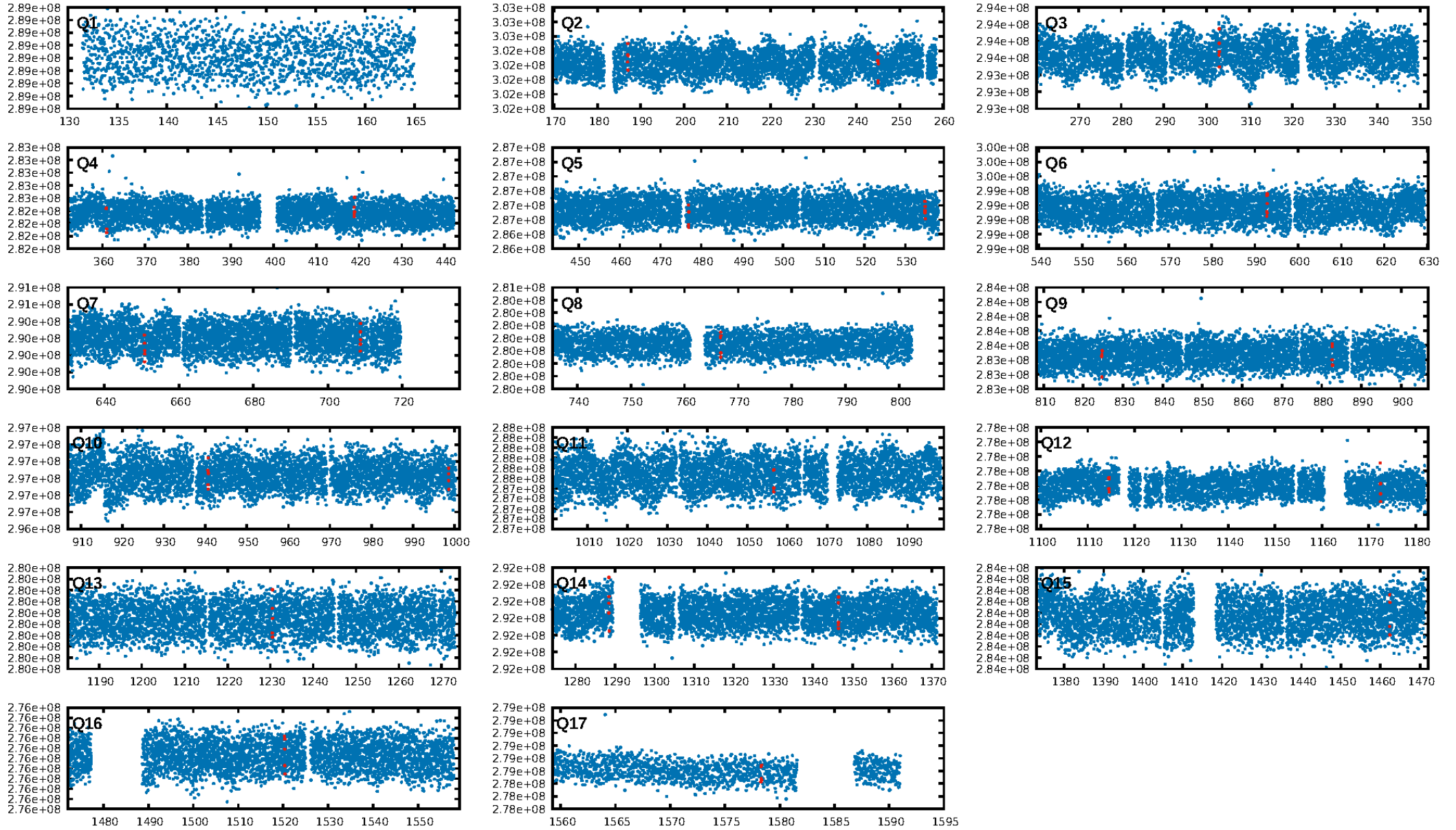
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [241.31σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 4.2%
Bootstrap-pfa: 2.29e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.6796
Centroid-sig: 86.2%
Centroid-so: 0.241 arcsec [0.42σ]
OotOffset-rm: 0.822 arcsec [1.29σ]
KicOffset-rm: 0.782 arcsec [1.24σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 0.12 [2/16]

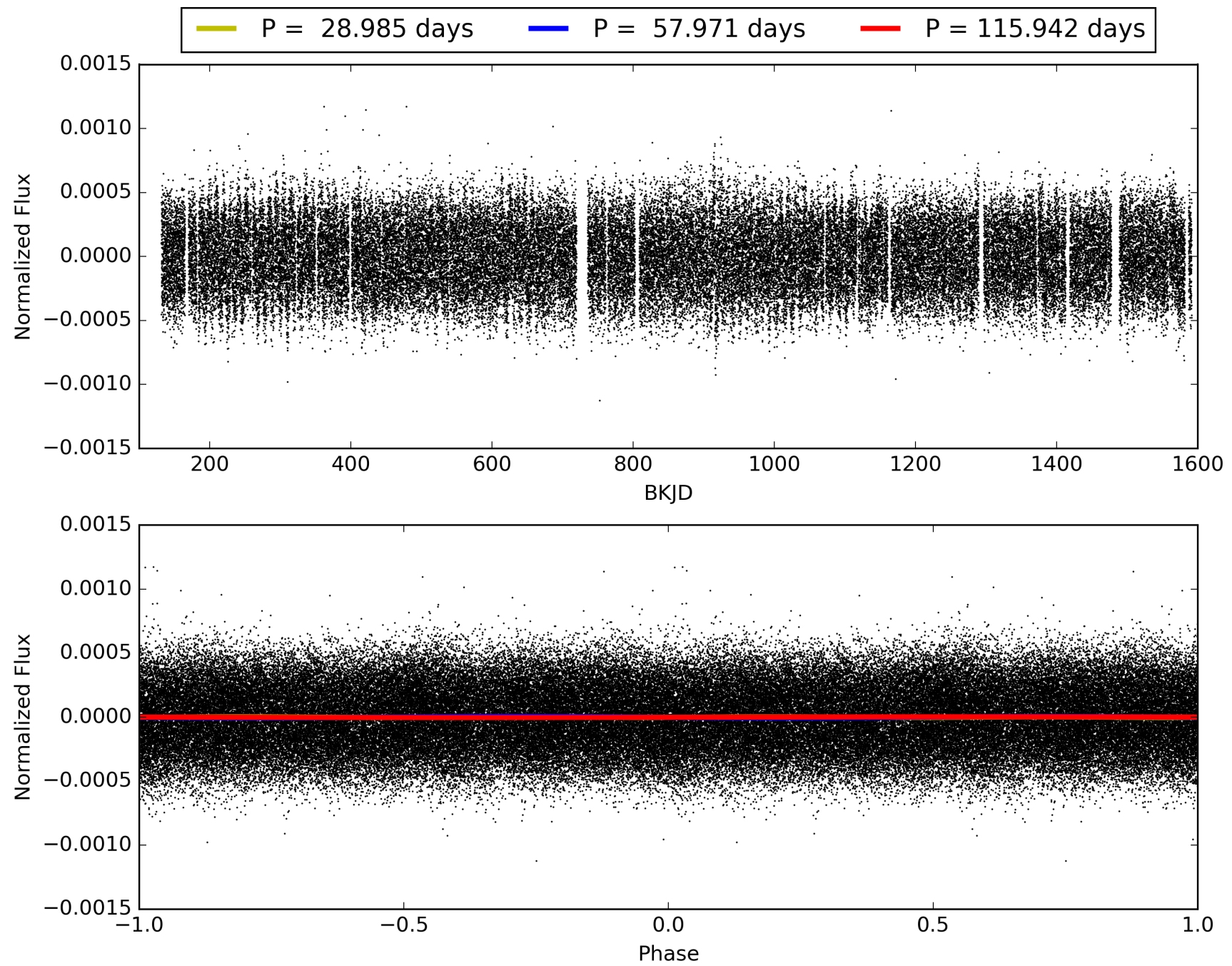
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:34:57 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-03, PDC Light Curves

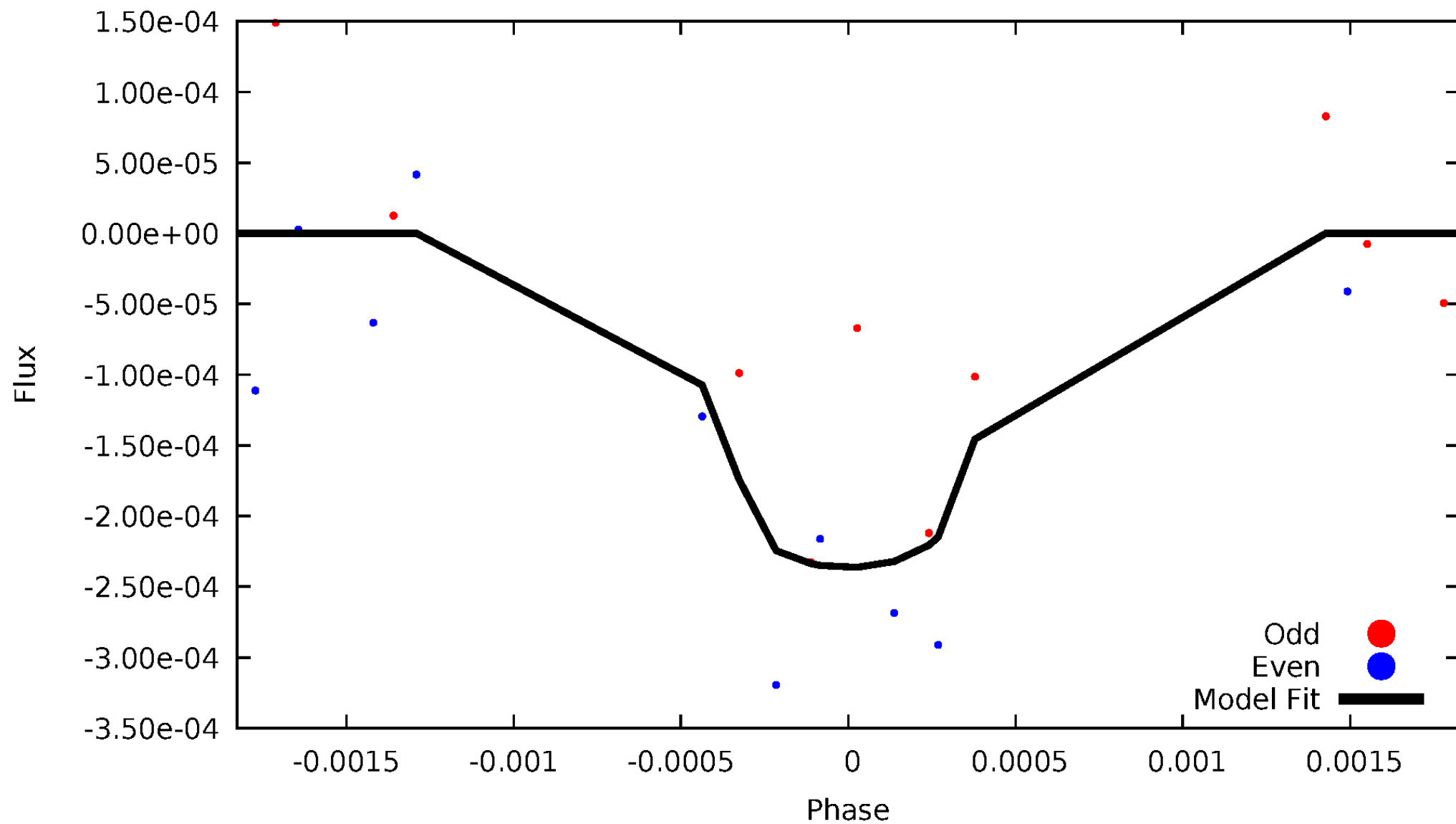


TCE 006697128-03



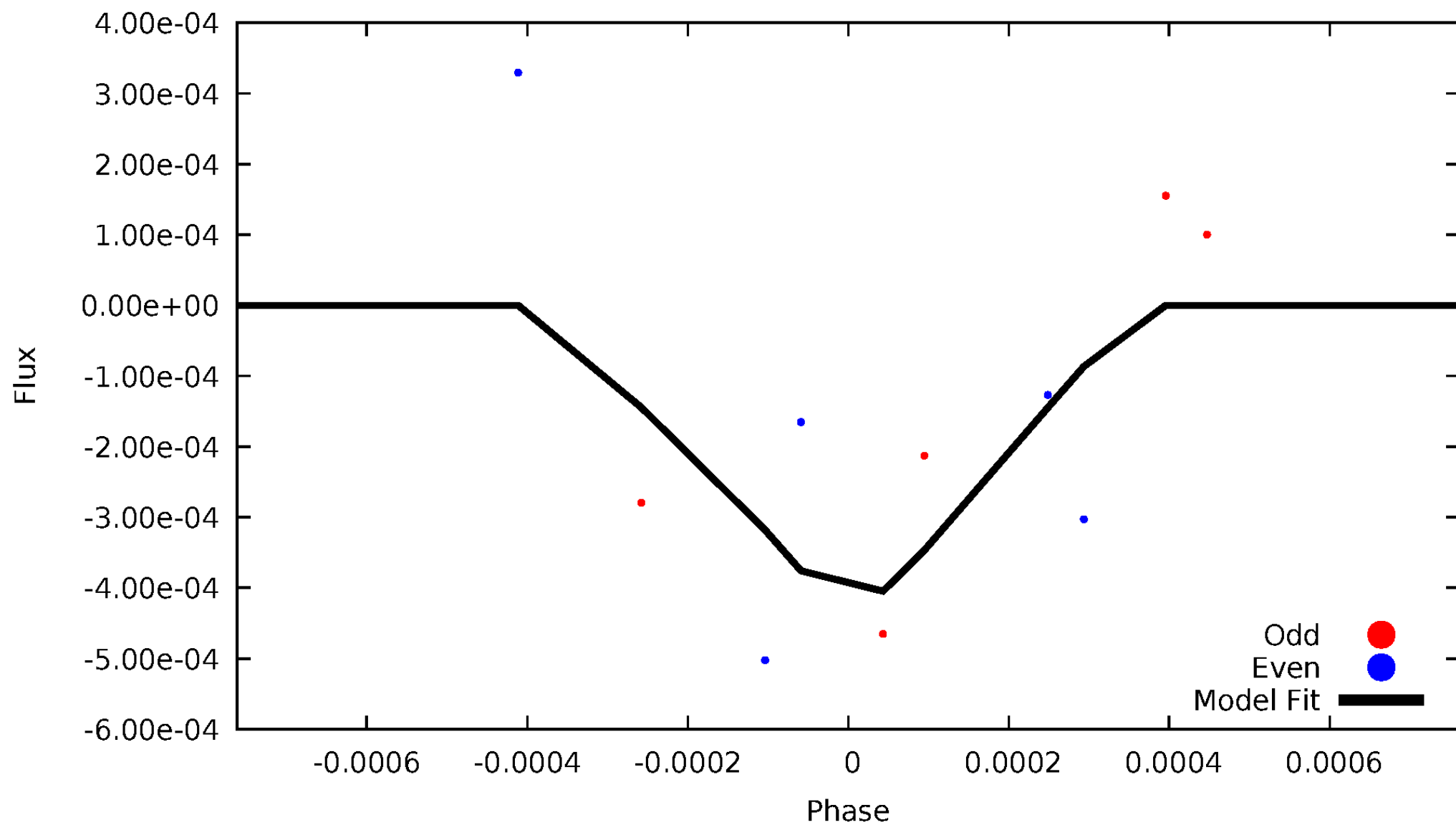
DV Odd/Even

TCE 006697128-03



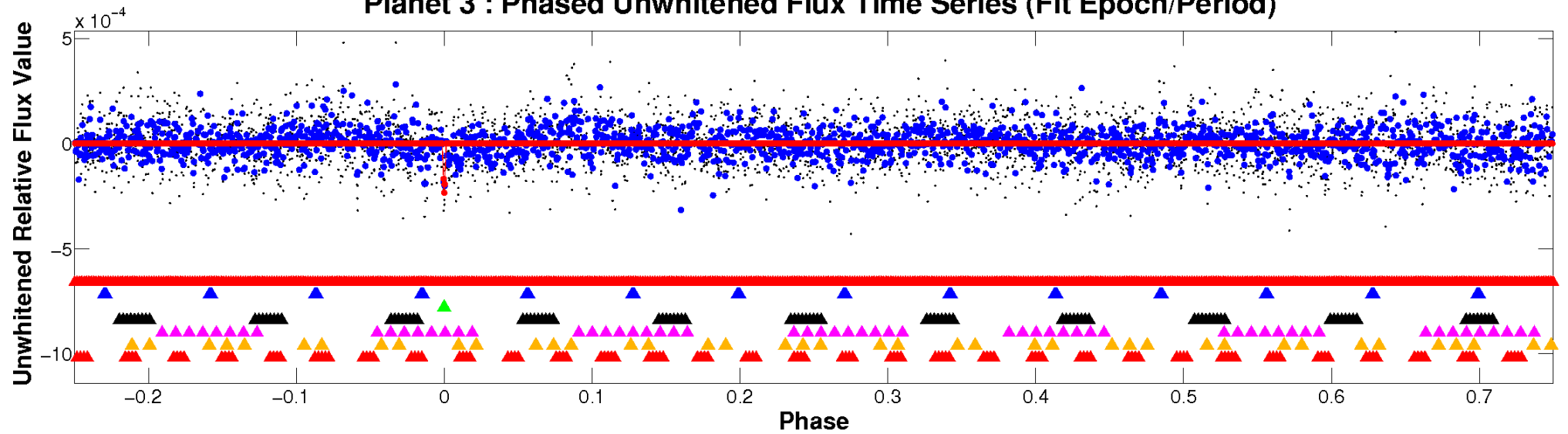
ALT Odd/Even

TCE 006697128-03

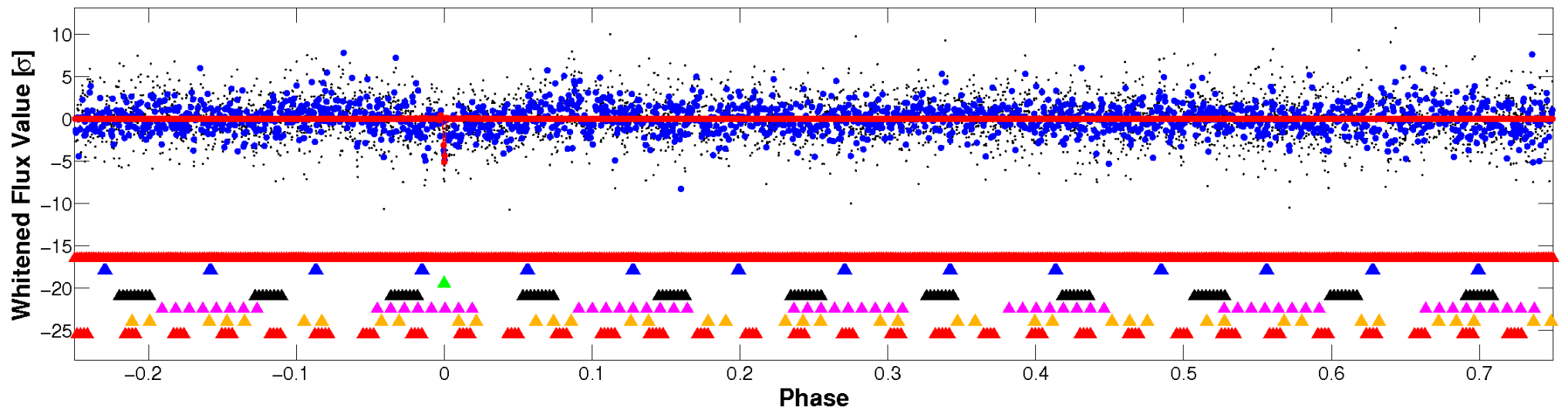


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

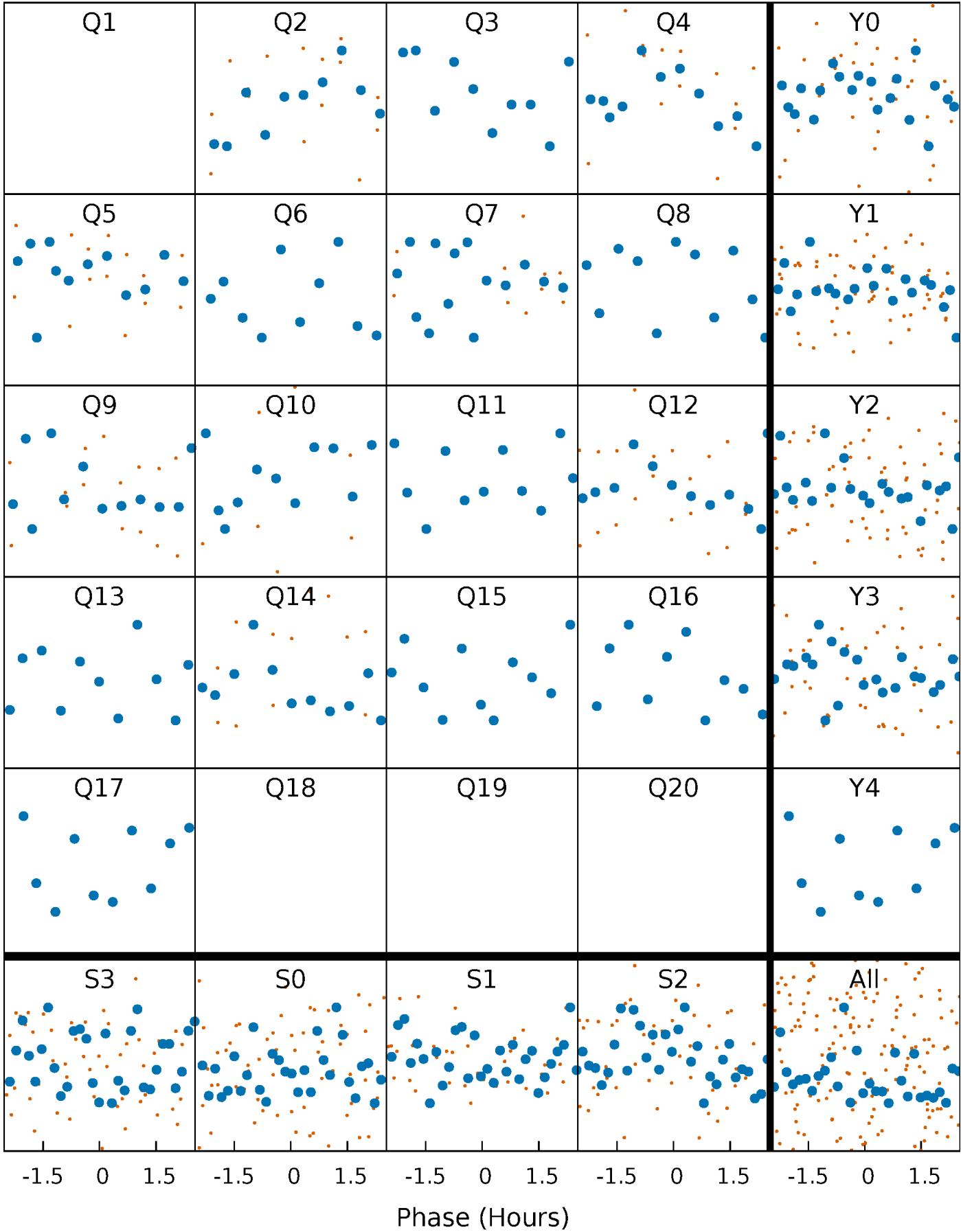


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



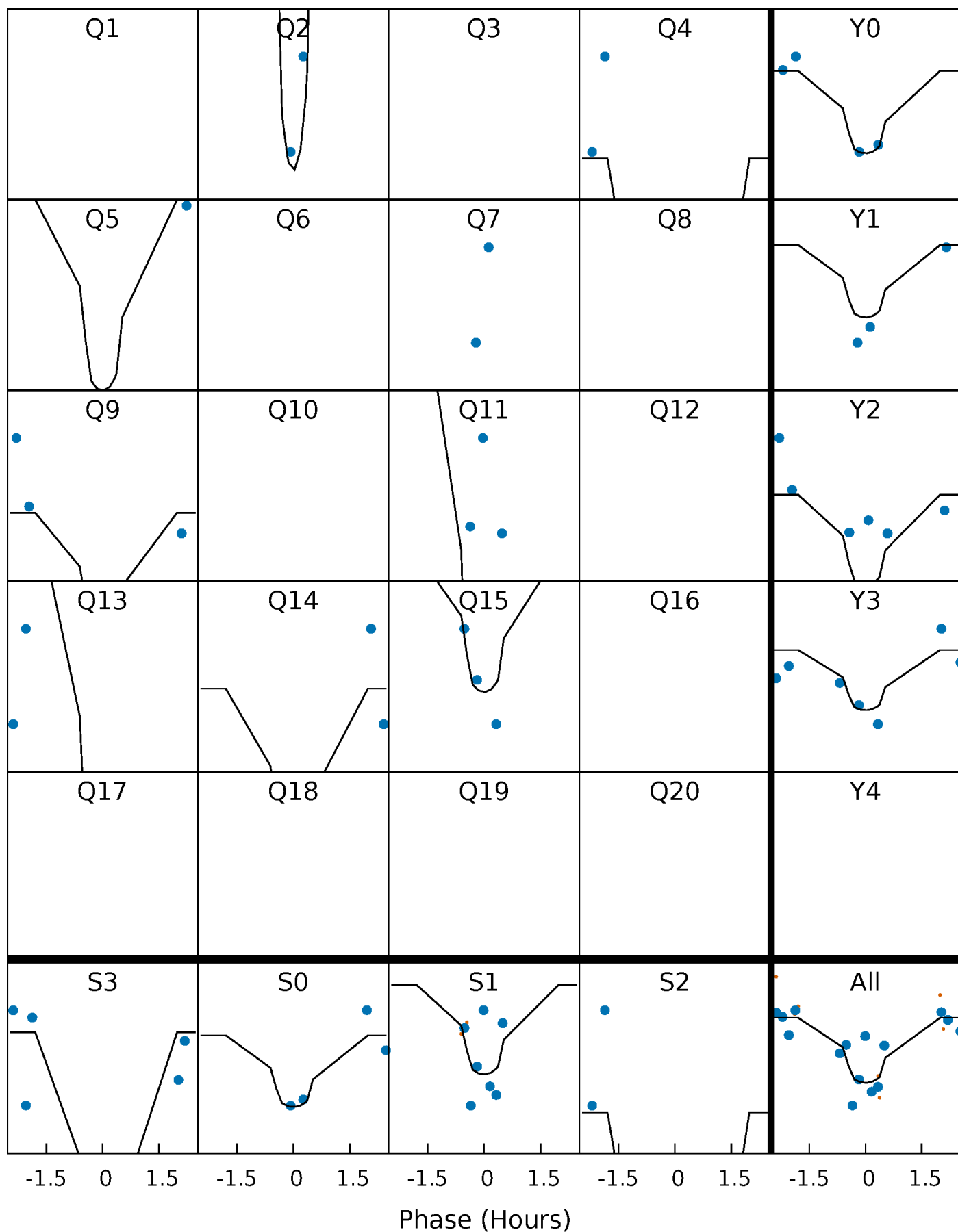
PDC Quarter-Phased Transit Curves

TCE 006697128-03 P= 57.970822 Days $T_0=187.017611$ (BKJD)



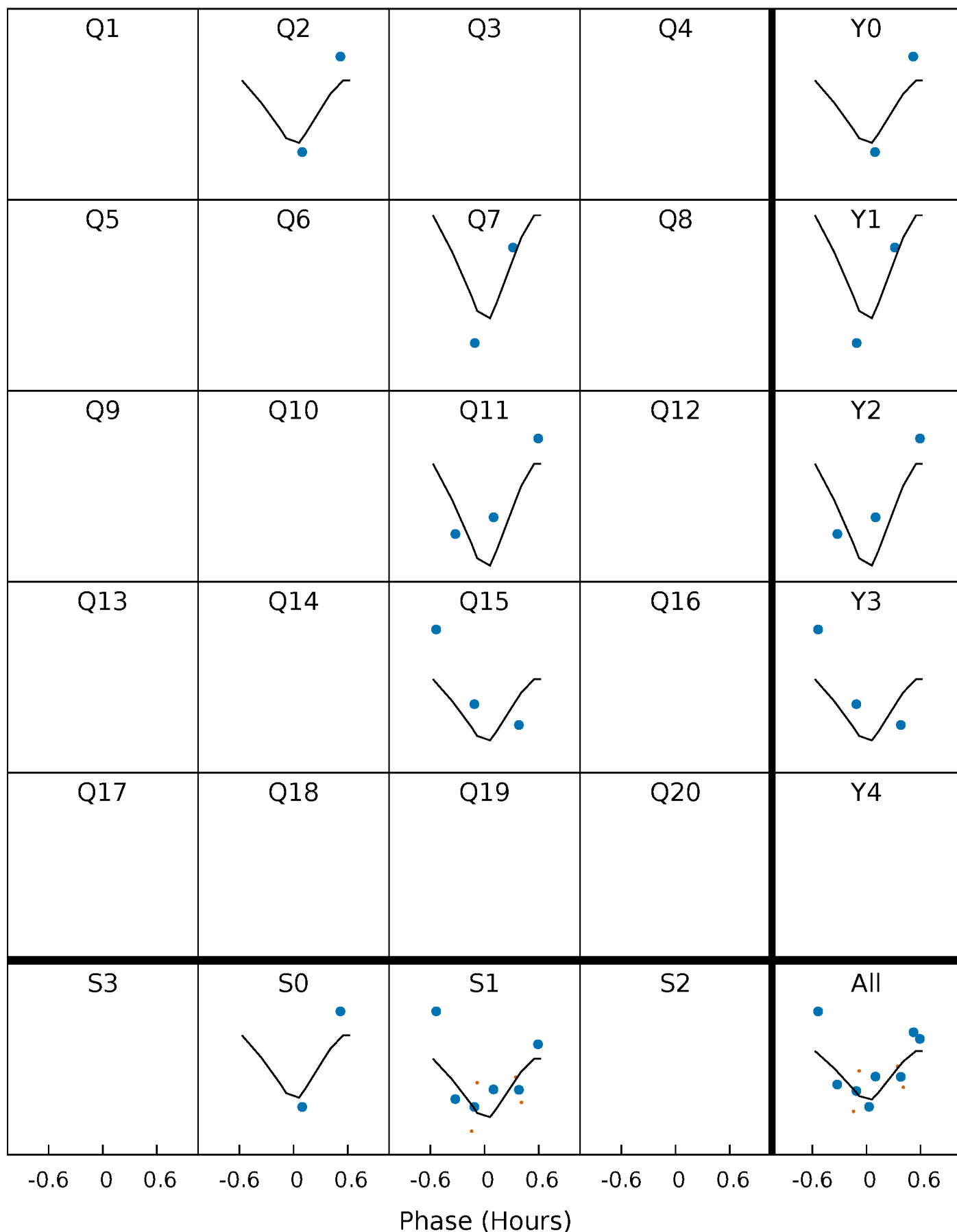
DV Quarter-Phased Transit Curves

TCE 006697128-03 P= 57.970822 Days $T_0=187.017611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

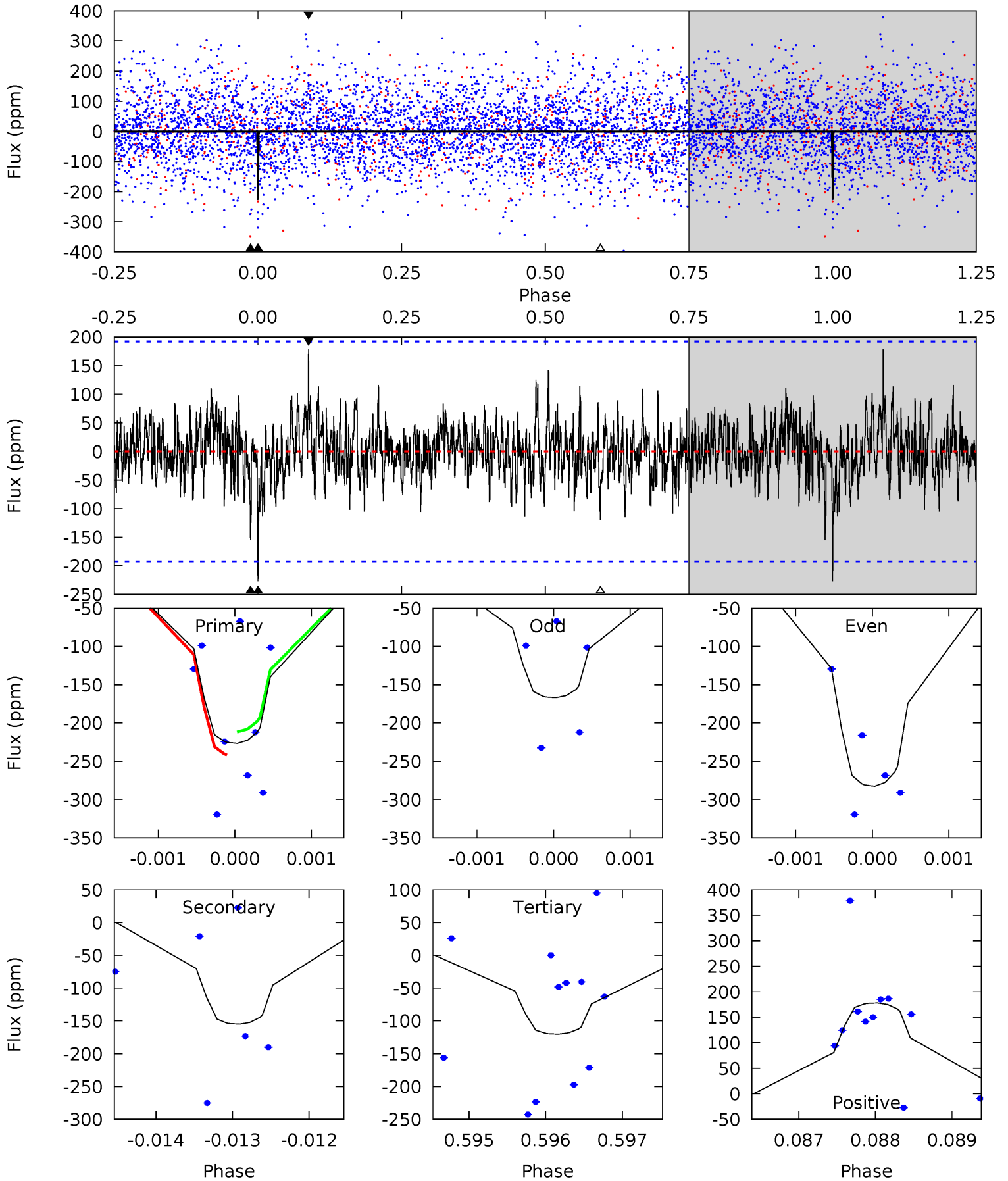
TCE 006697128-03 P= 57.971181 Days $T_0=187.008258$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-03, P = 57.970822 Days, E = 129.046789 Days

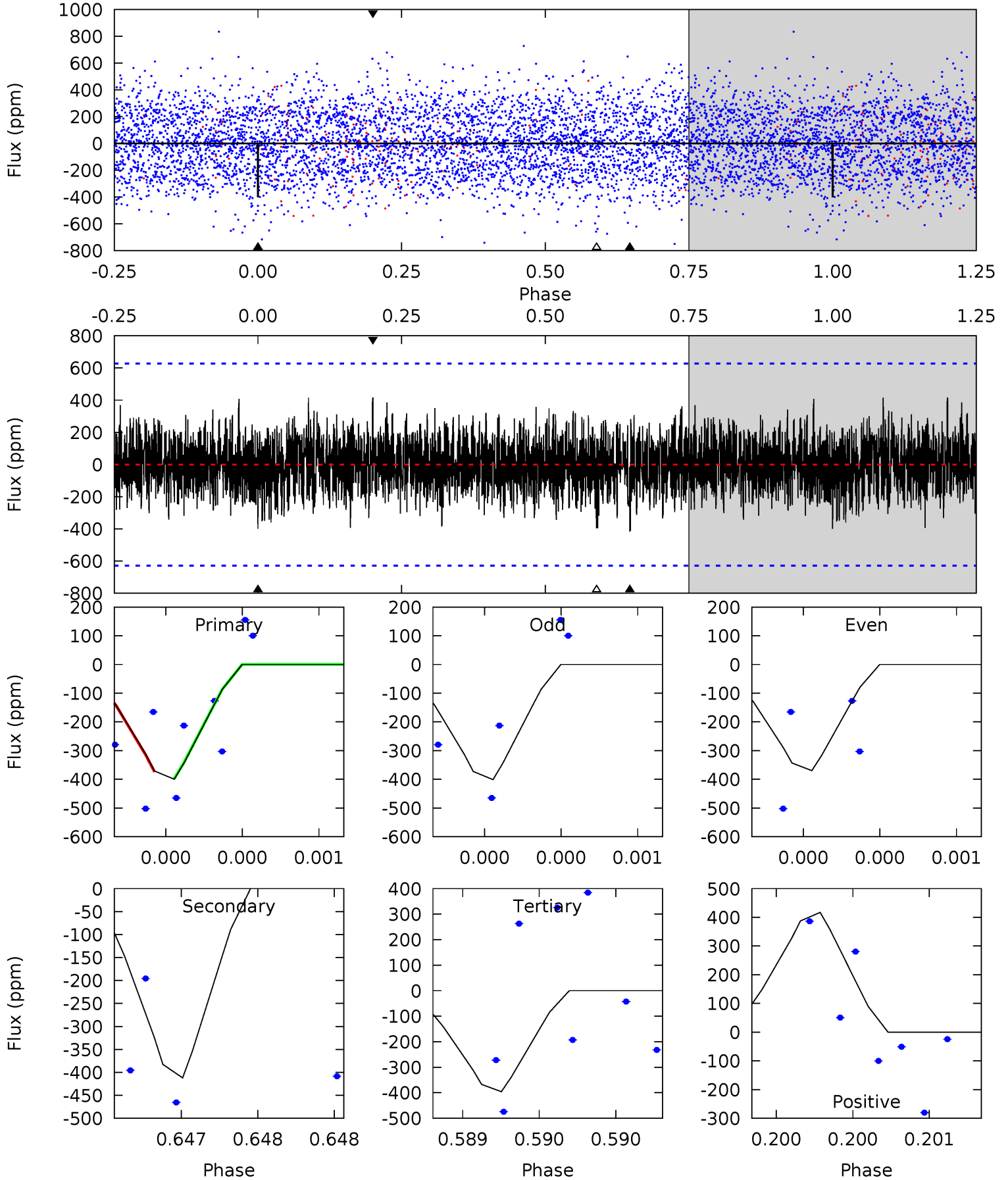
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.47	4.43	3.44	5.09	5.49	3.35	1.16	3.04	1.38	0.99	-0.66	1.64	0.91	0.44	0.43



Alt Model-Shift Uniqueness Test

006697128-03, P = 57.971181 Days, E = 129.037077 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.57	3.68	3.54	3.73	5.61	3.54	1.25	0.04	-0.15	0.15	-0.05	0.14	1.18	0.50	0.09



Stellar Parameters For KIC 006697128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-155 ± 35	$5.84^{+5.09}_{-3.85}$	1092^{+56}_{-44}	5038^{+3726}_{-1131}	287^{+2132}_{-207}
Alt.	-412 ± 112	$6.65^{+4.93}_{-4.47}$	1093^{+50}_{-44}	5843^{+6111}_{-1266}	586^{+4947}_{-407}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

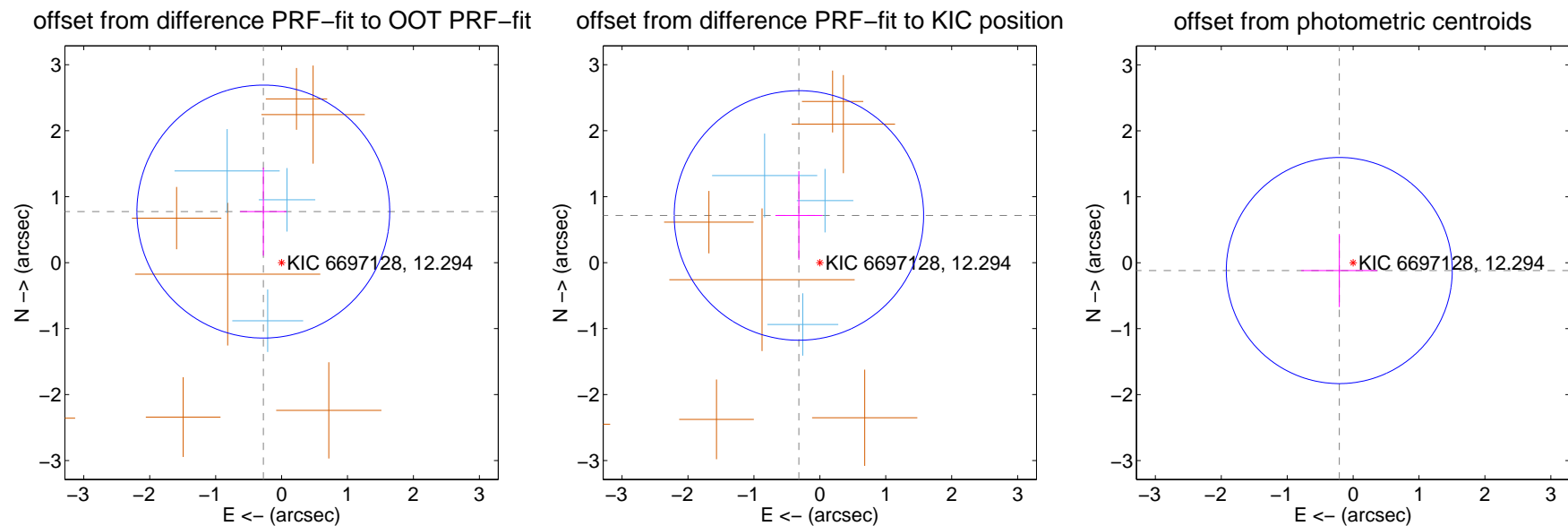
DV Centroid Data

Supplemental centroid analysis for 006697128-03. Kepler magnitude: 12.29. Transit SNR 13.83

There are 3 quarters with good PRF difference image offsets

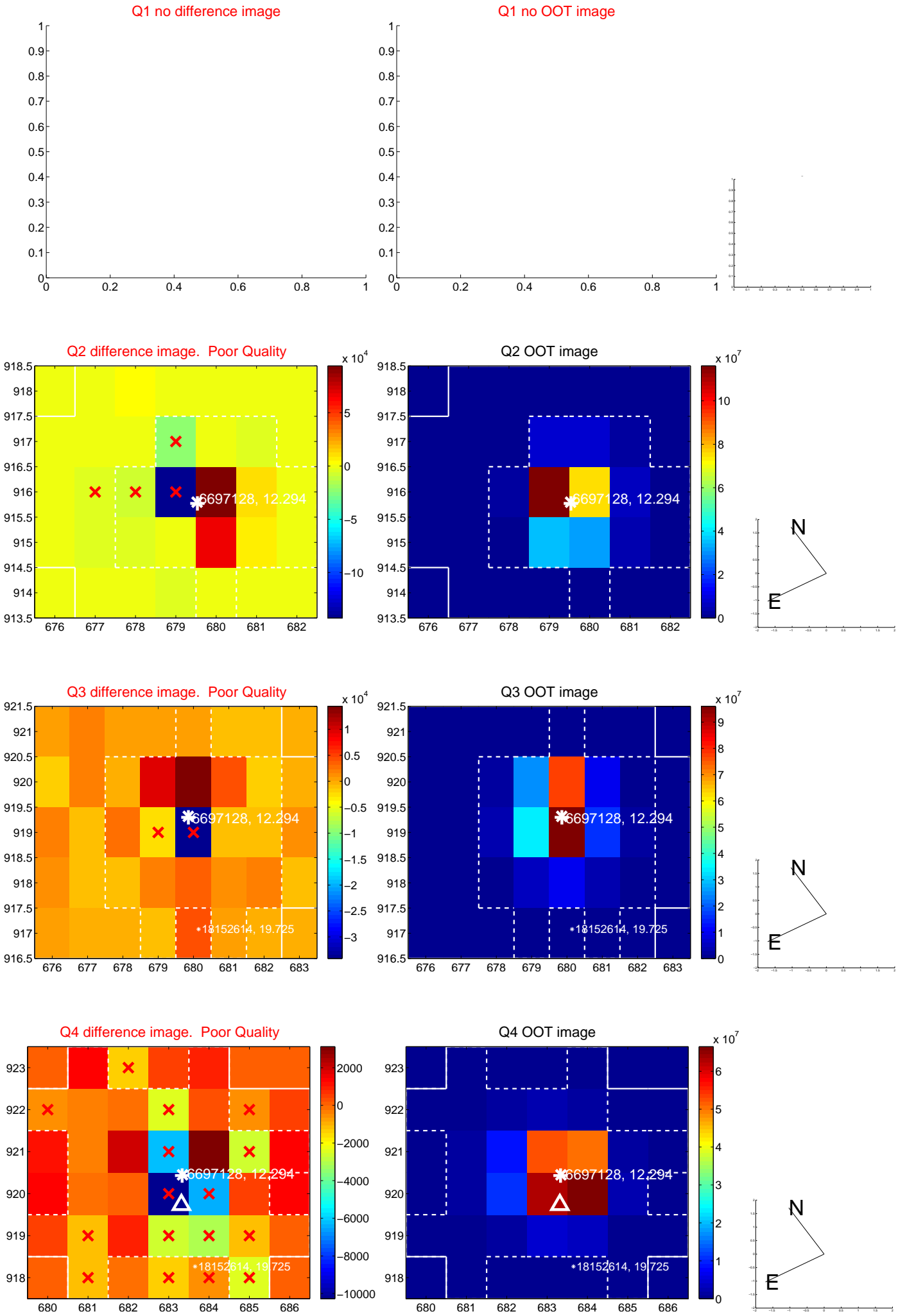
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.822 ± 0.639	1.29	0.277 ± 0.353	0.774 ± 0.667
PRF-fit source offset from KIC position	0.782 ± 0.630	1.24	0.317 ± 0.357	0.715 ± 0.671
photometric centroid source offset	0.24 ± 0.57	0.42	0.21 ± 0.58	-0.12 ± 0.55

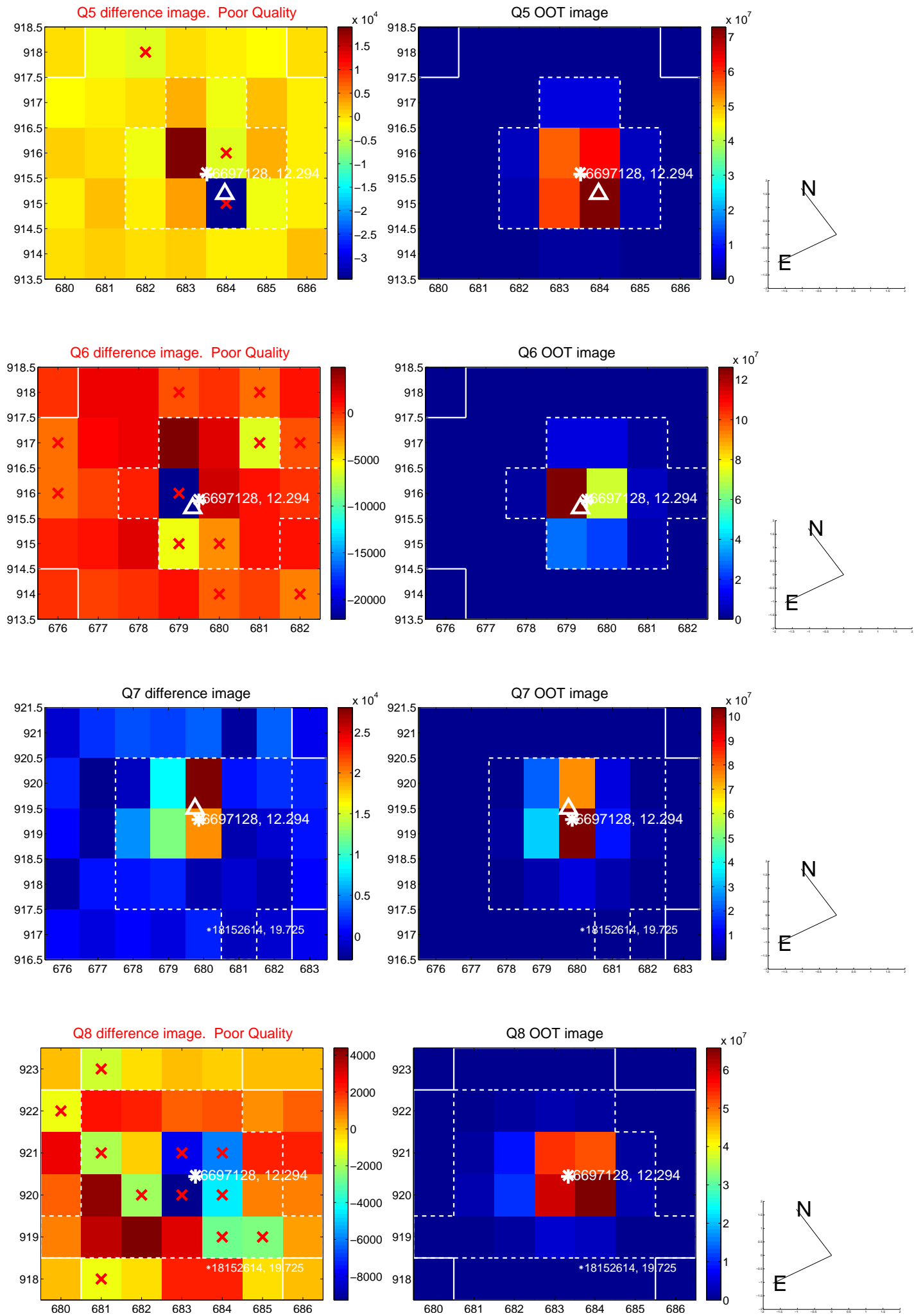


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

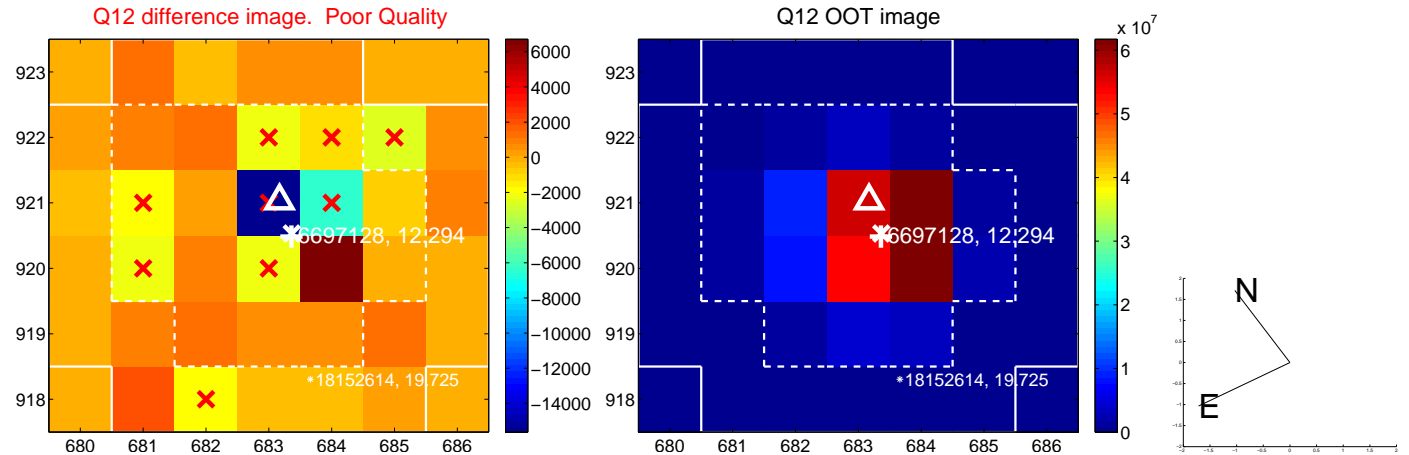
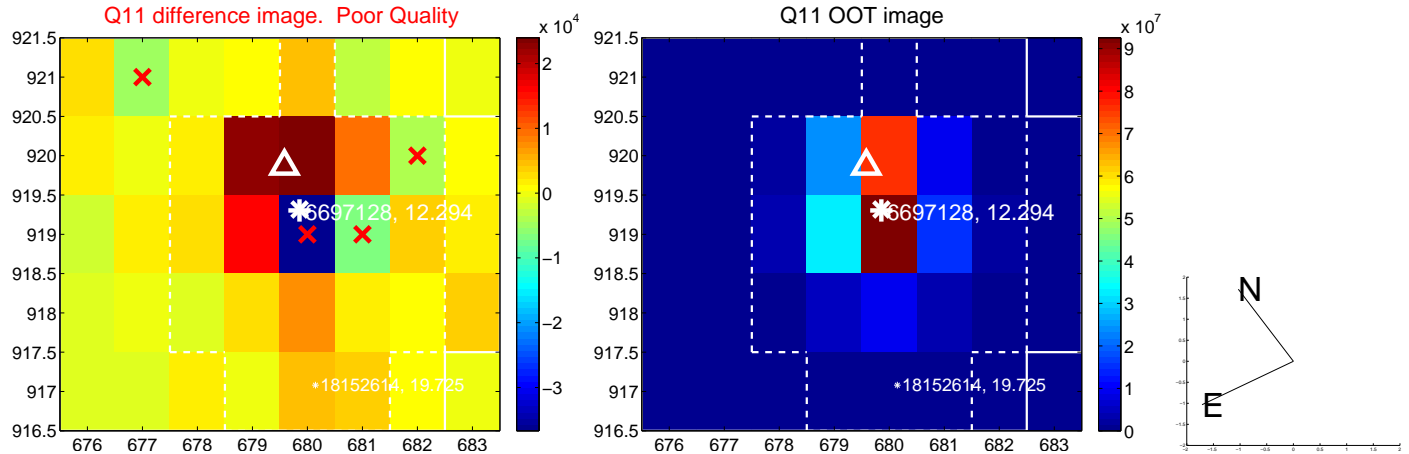
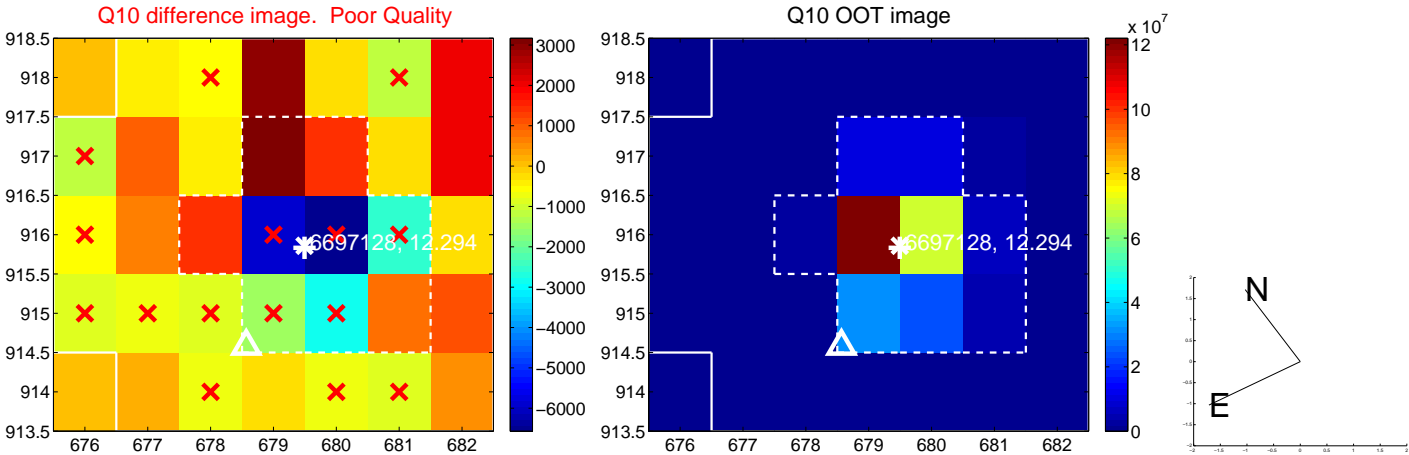
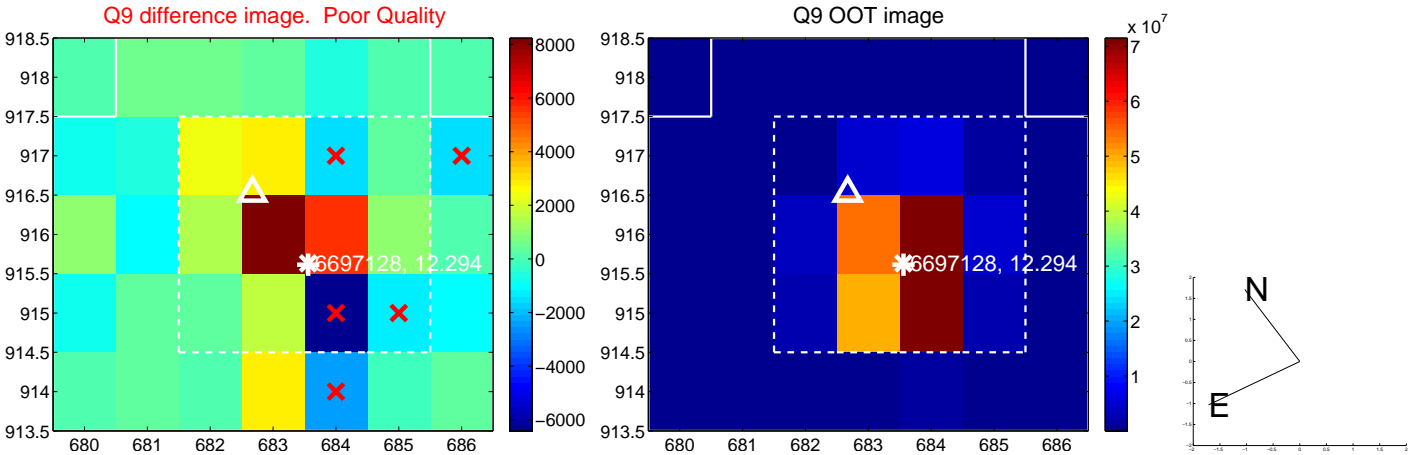
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



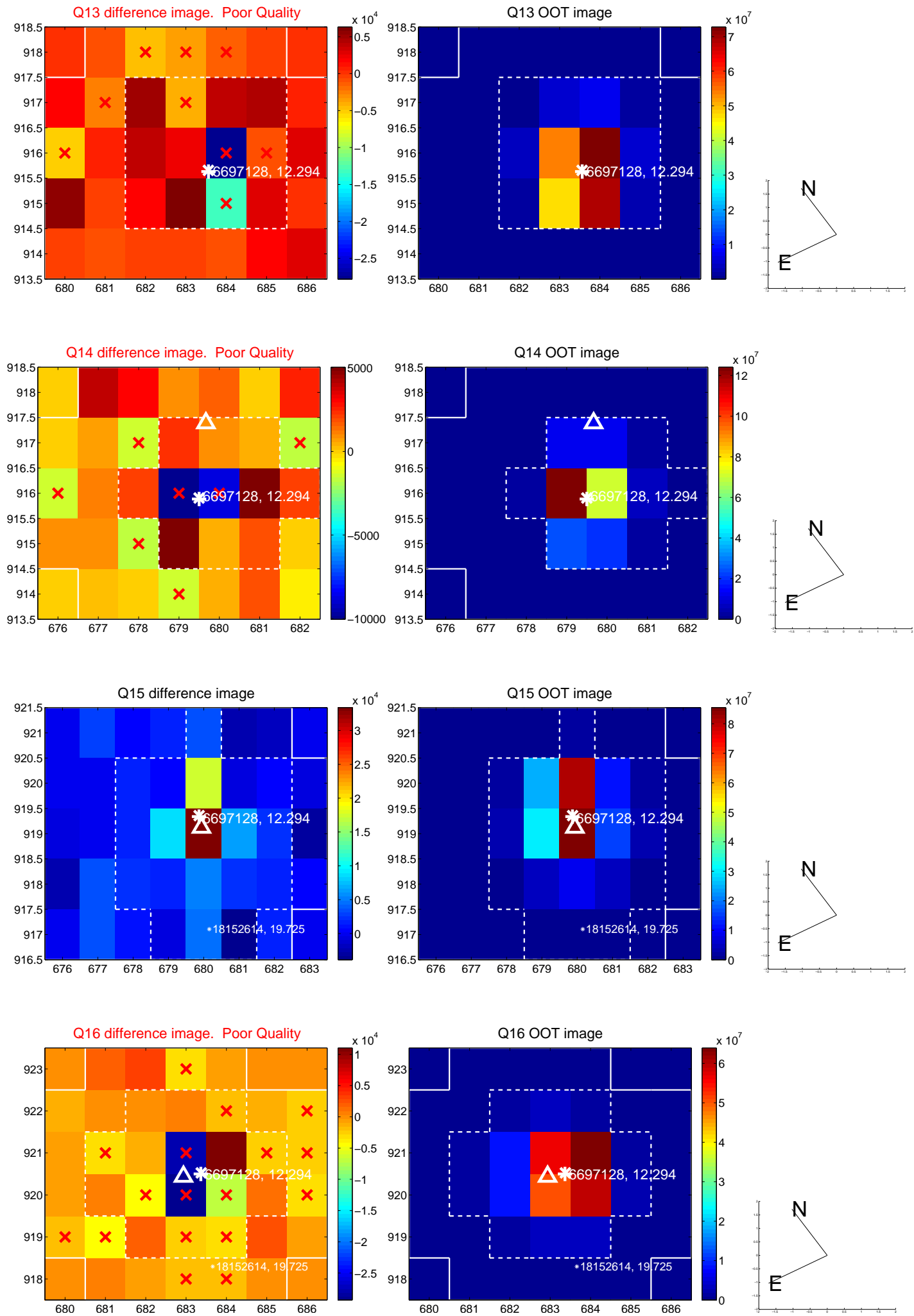
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



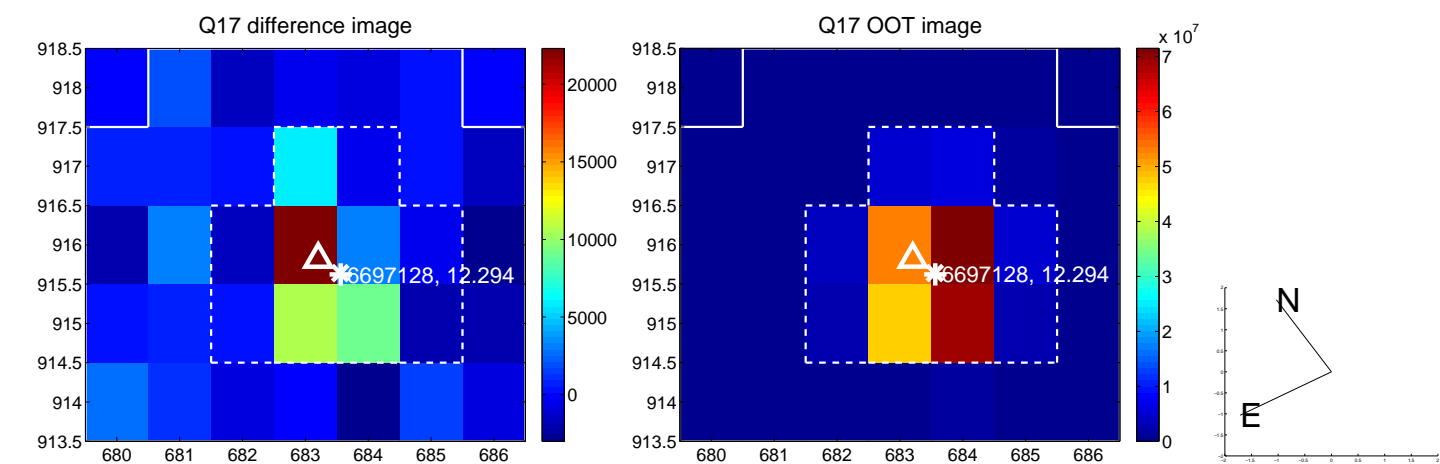
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



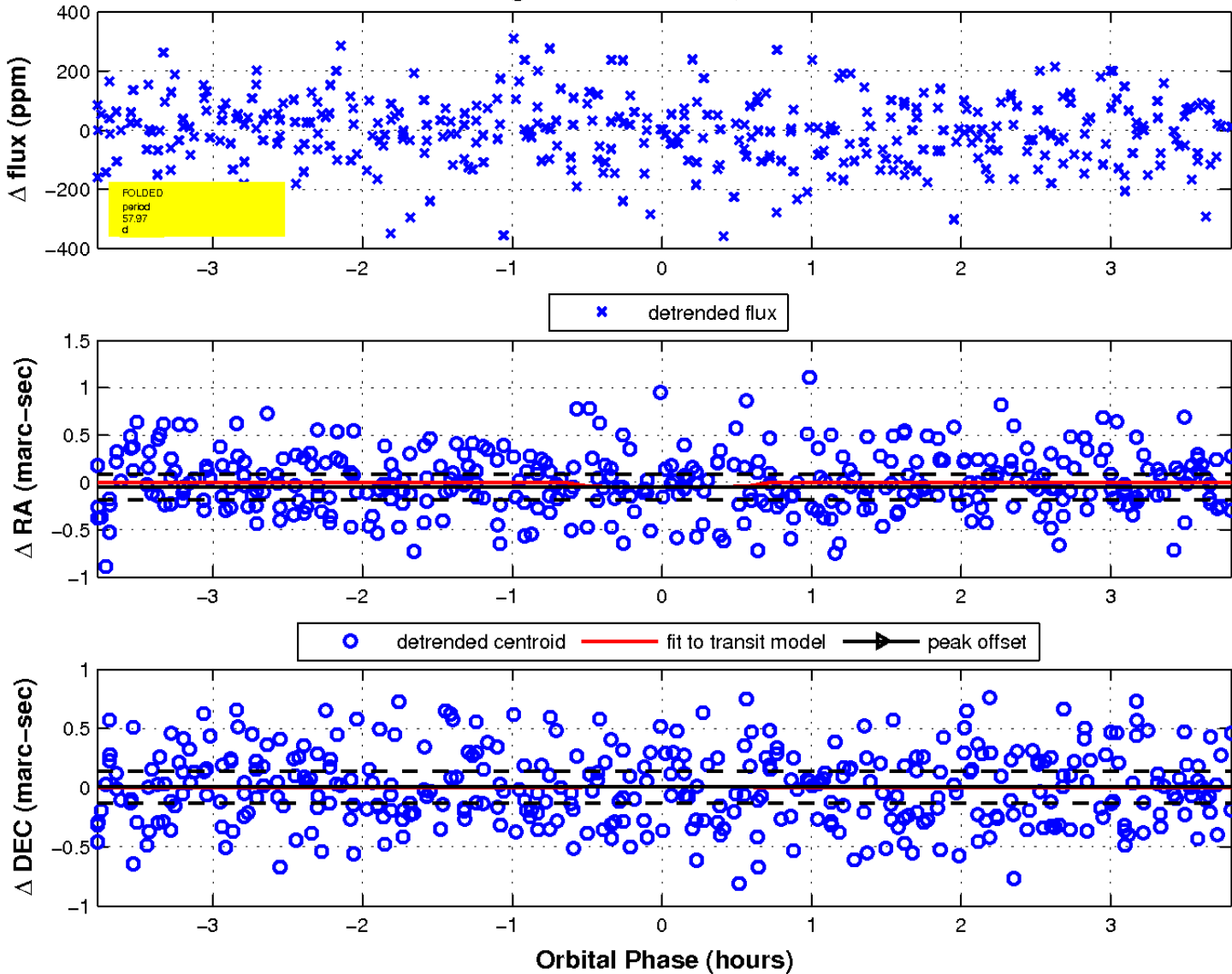
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.

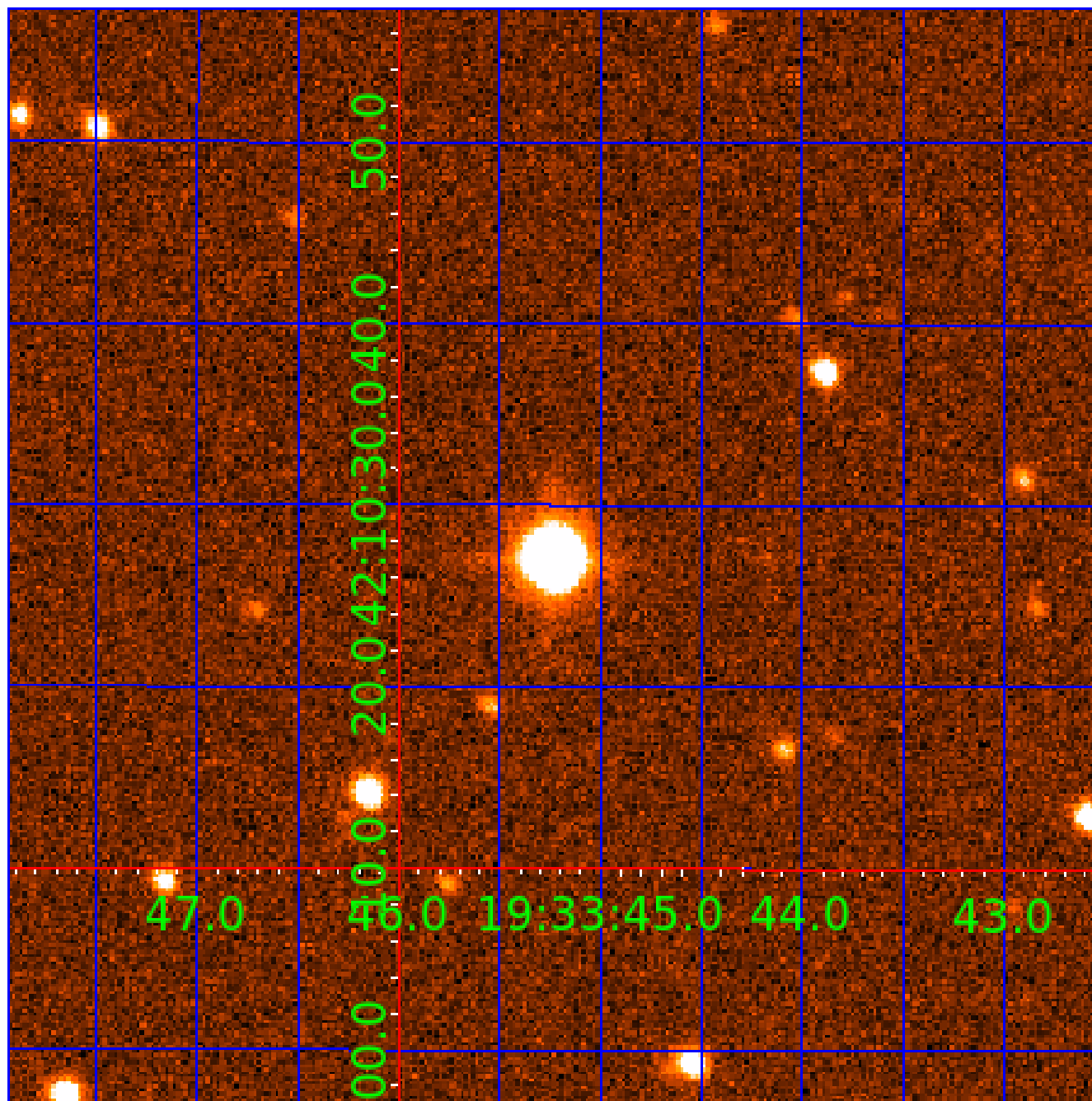


fluxWeightedCentroids, Planet 3 of 7



UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

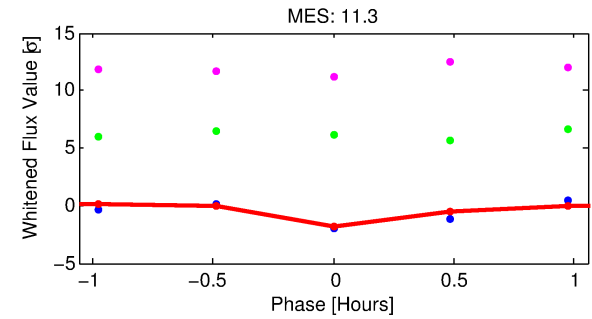
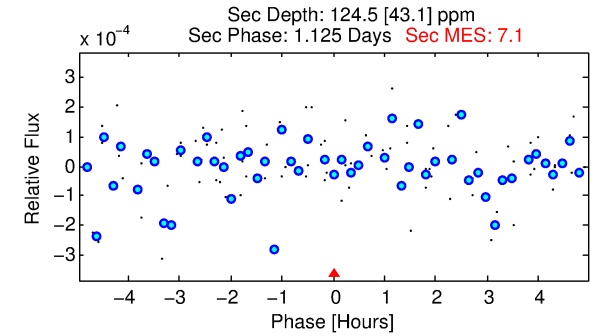
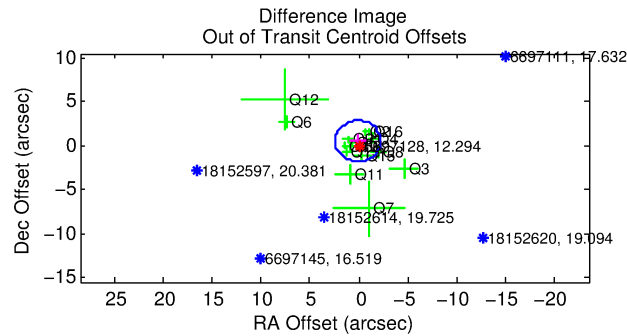
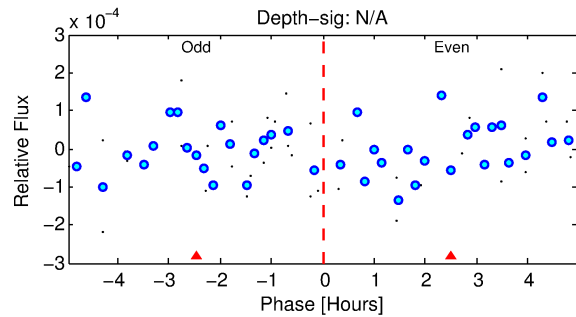
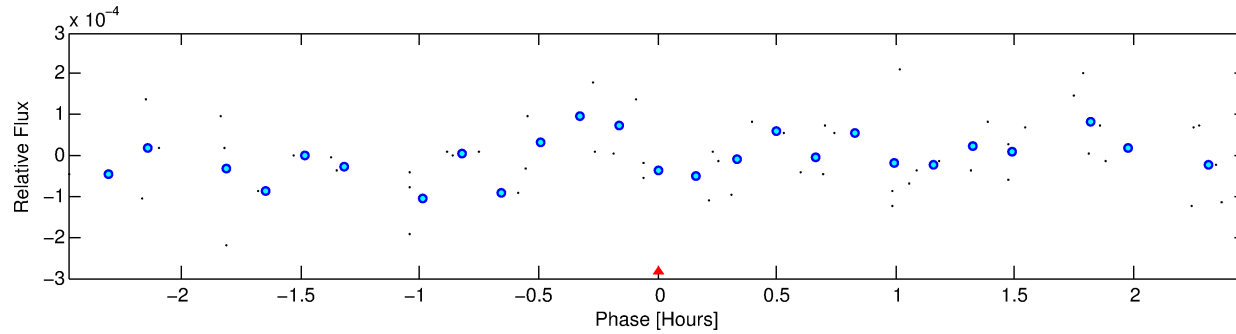
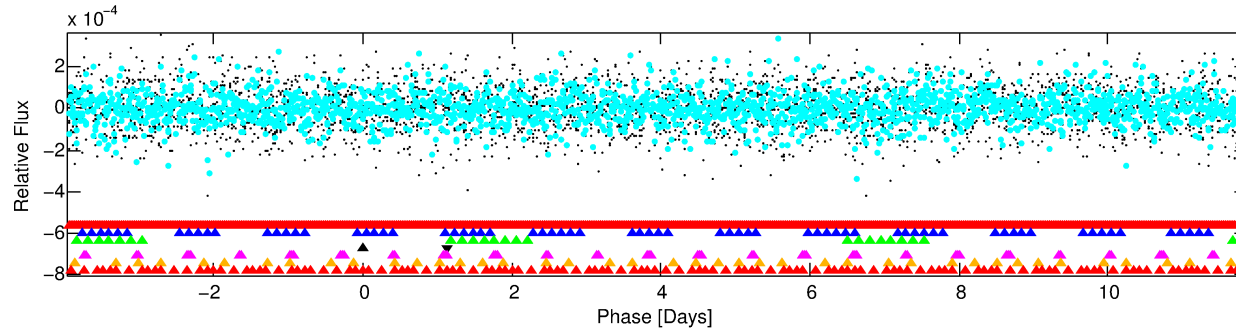
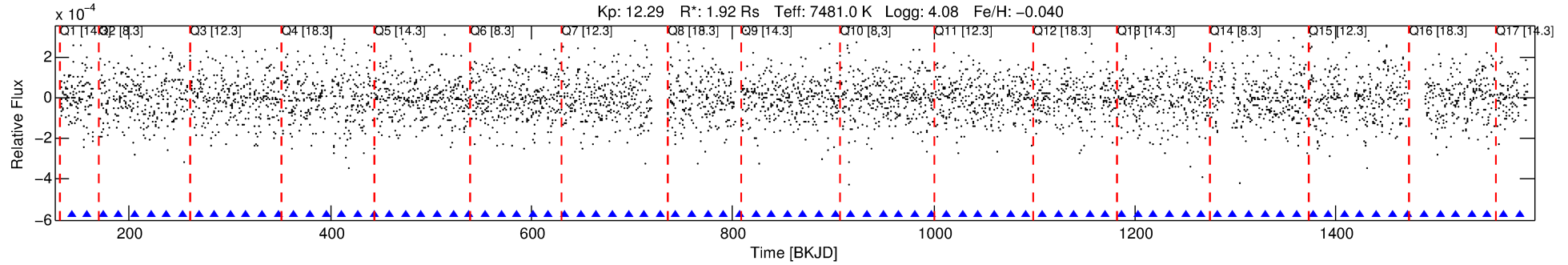
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-04

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 4 of 7 Period: 15.824 d



TPS TCE Results:

Period = 15.82373 d
Epoch = 142.6360 BKJD

DV fit results are unavailable

DV Diagnostic Results:

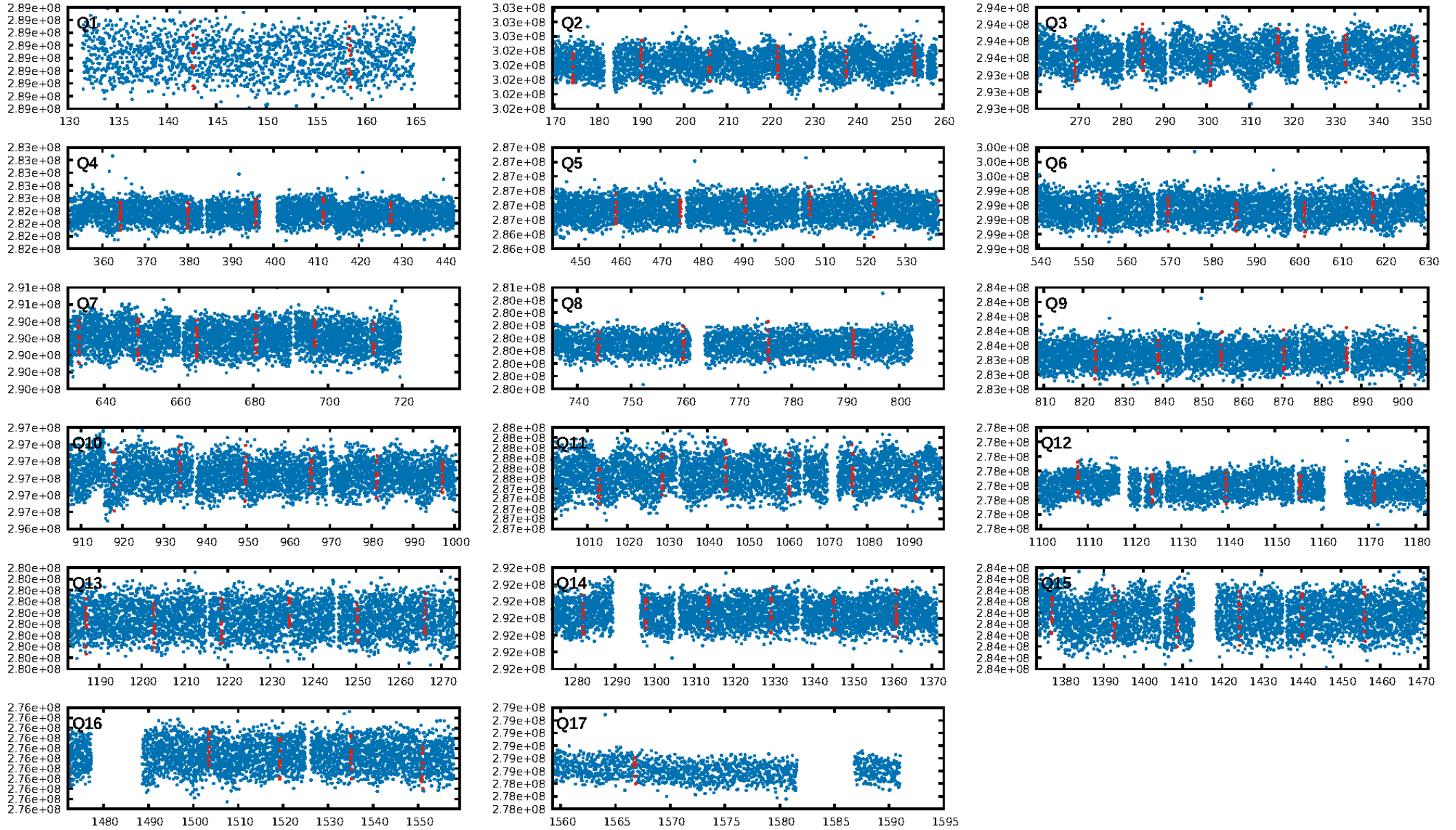
ShortPeriod-sig: 100.0% [37.77σ]
LongPeriod-sig: 100.0% [32.59σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.25e-09
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -0.0586

Centroid-sig: 35.4%
Centroid-so: 0.316 arcsec [0.80σ]
OotOffset-rm: 0.553 arcsec [0.71σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 0.06 [1/17]

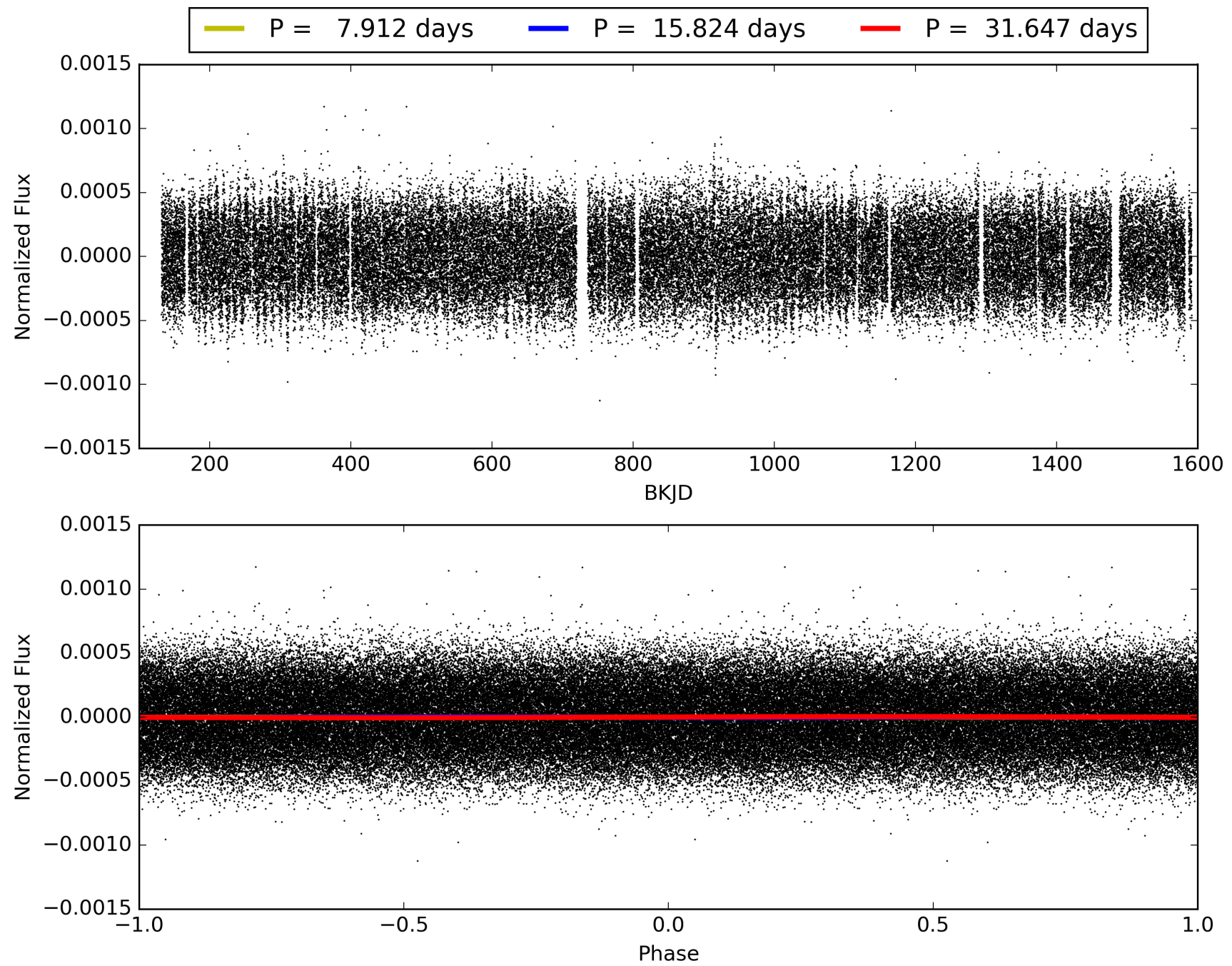
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:35:01 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-04, PDC Light Curves

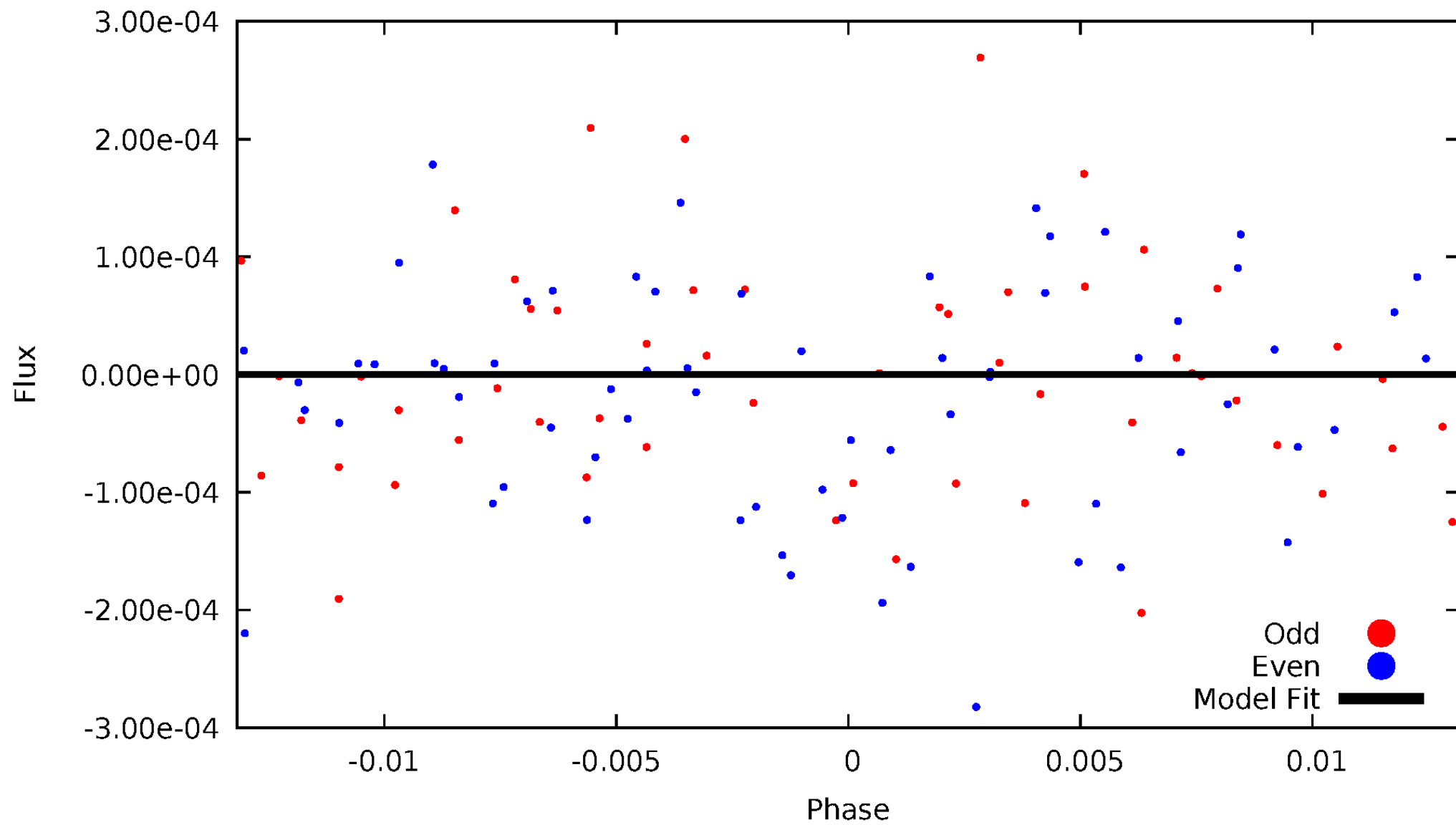


TCE 006697128-04



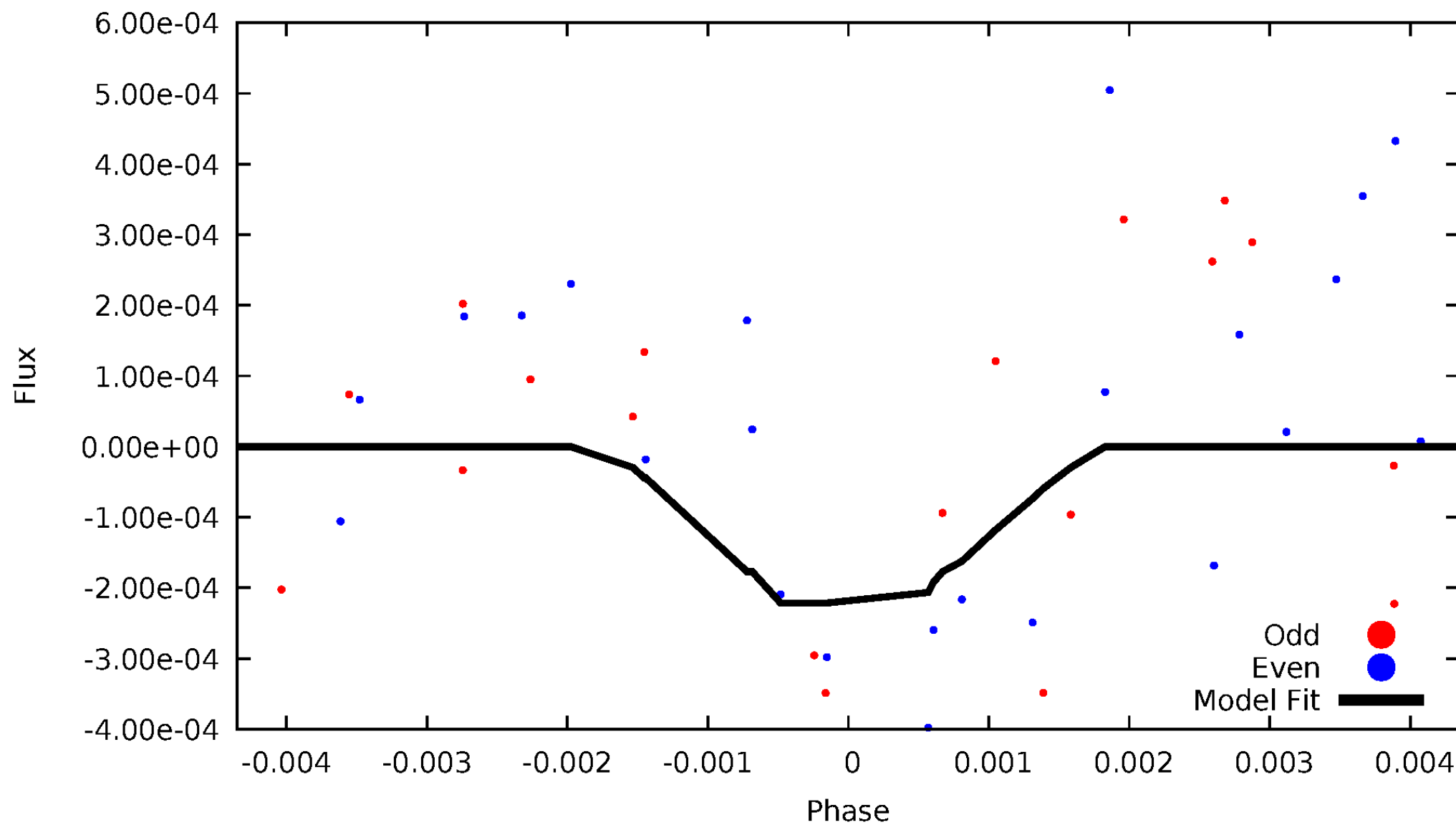
DV Odd/Even

TCE 006697128-04



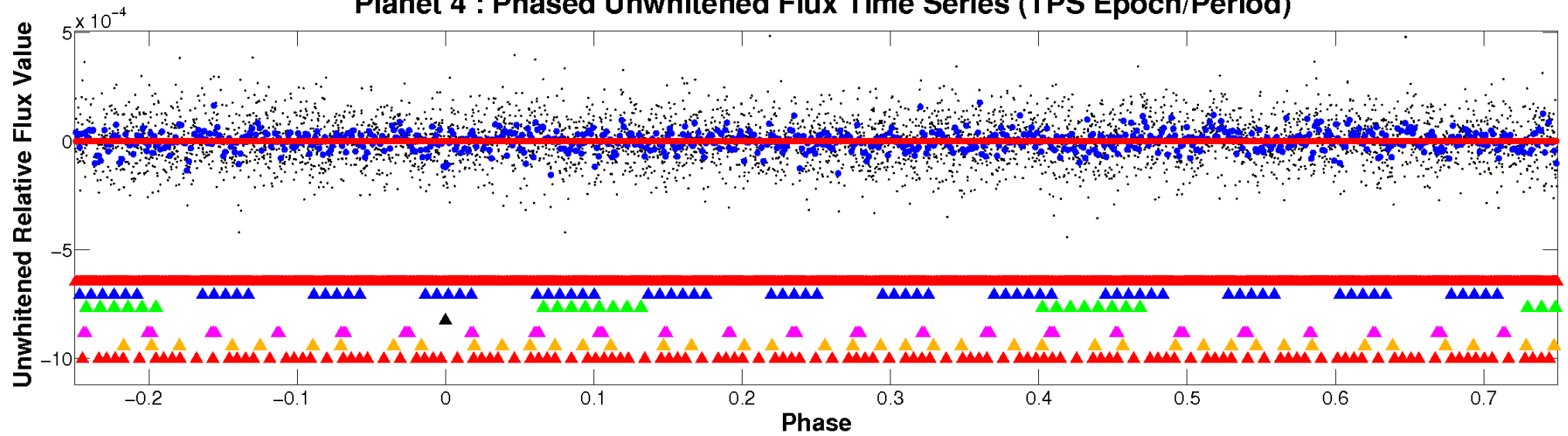
ALT Odd/Even

TCE 006697128-04

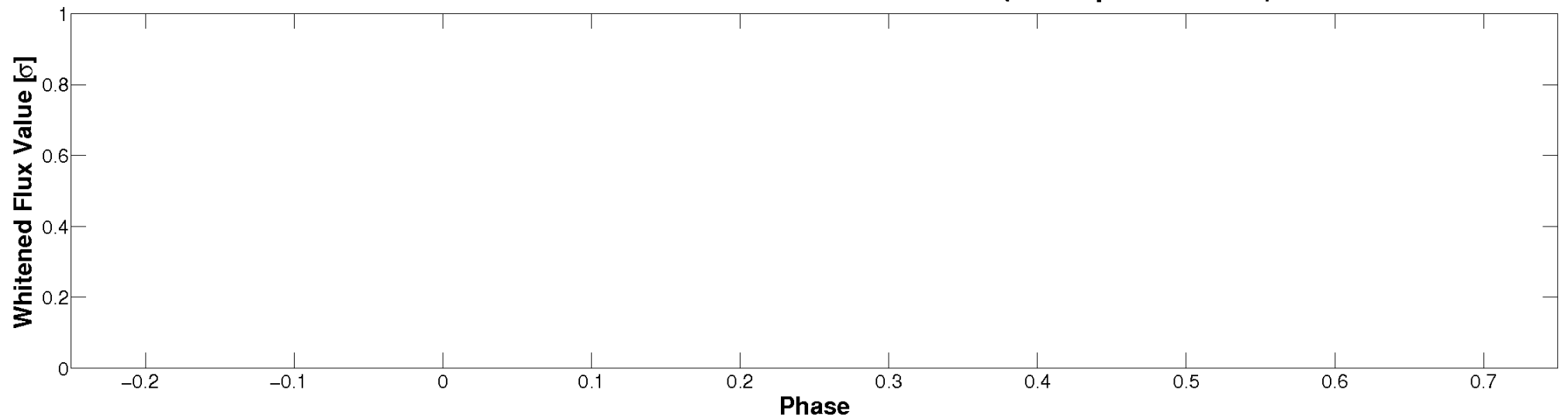


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

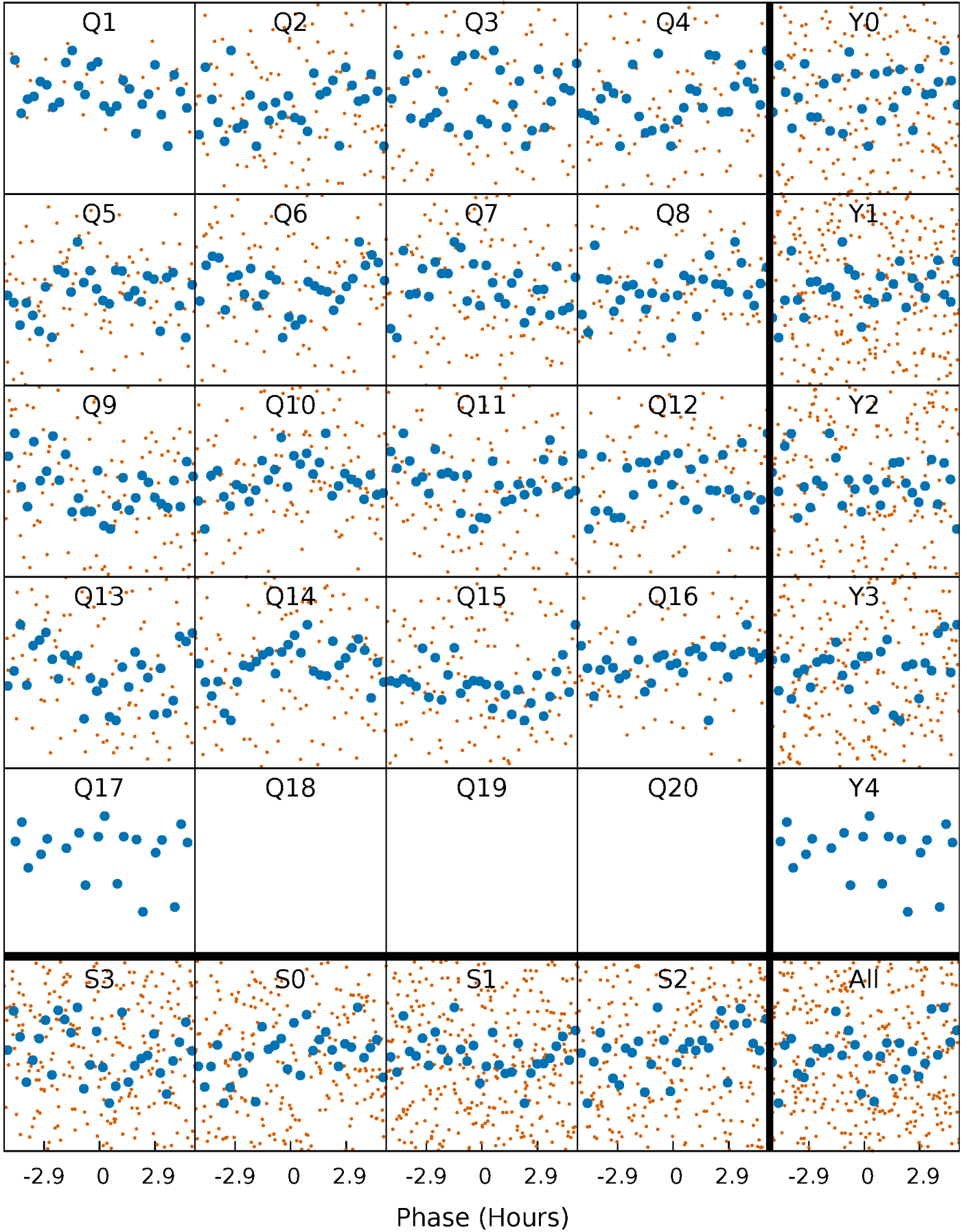


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



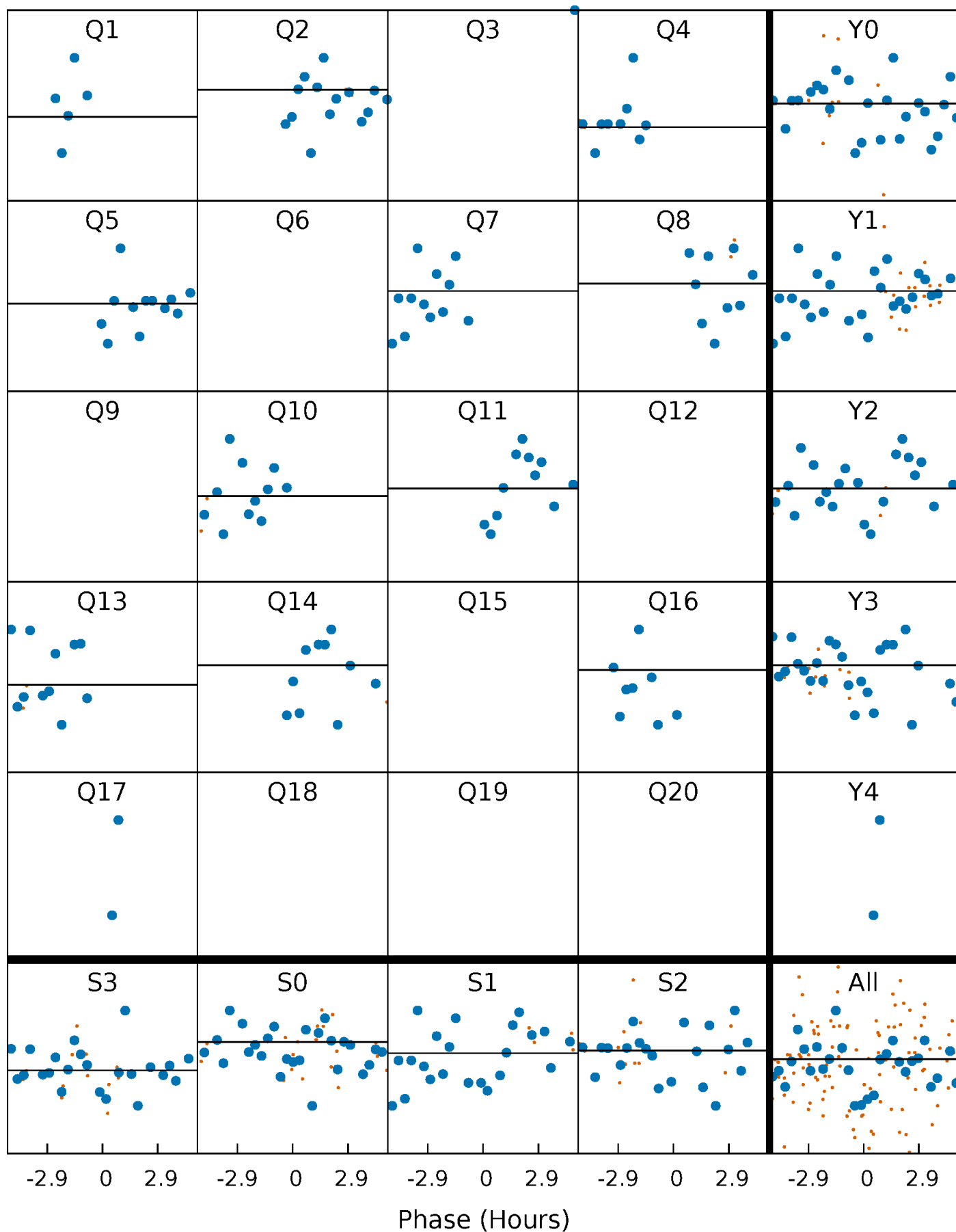
PDC Quarter-Phased Transit Curves

TCE 006697128-04 P= 15.823734 Days $T_0=142.635997$ (BKJD)



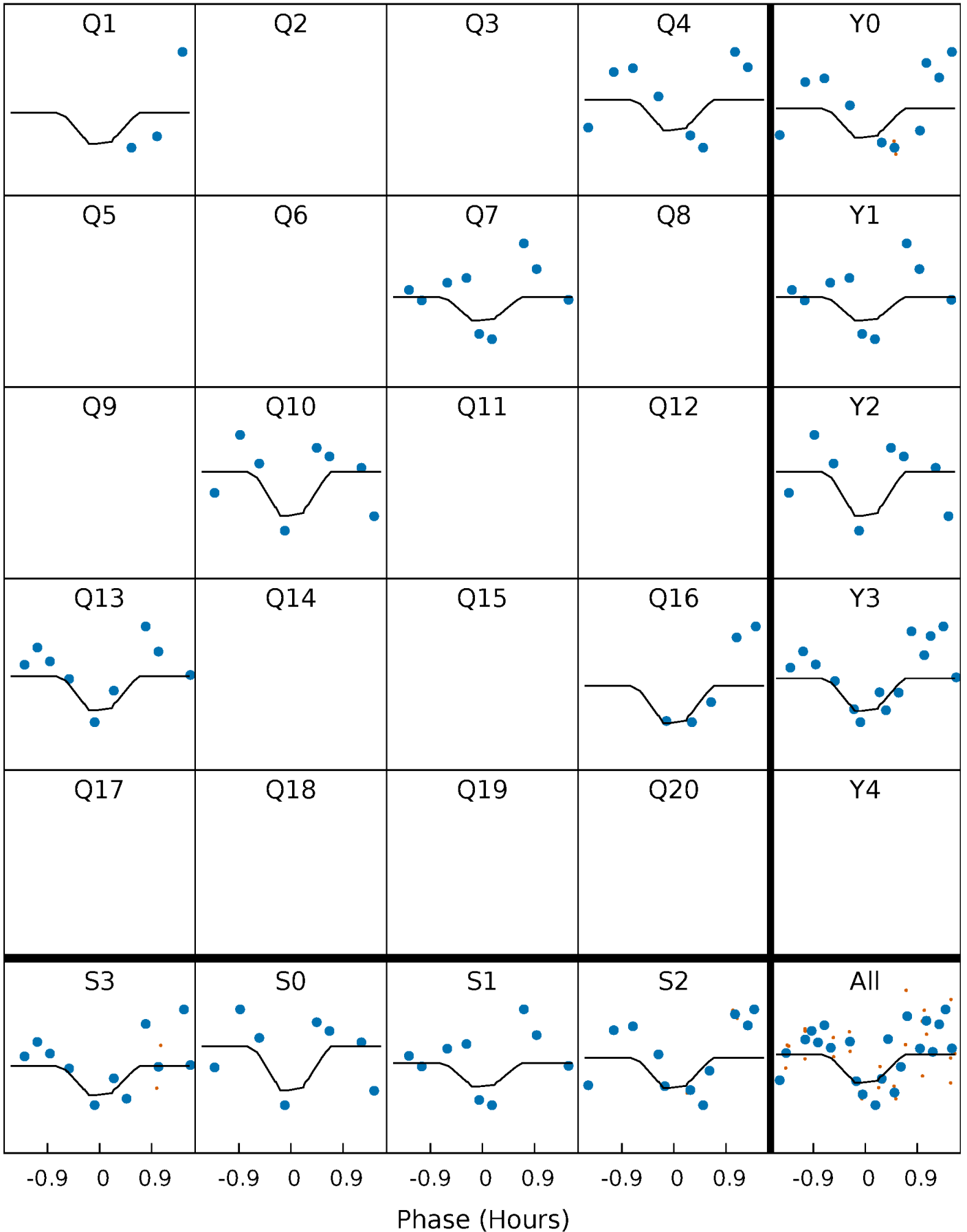
DV Quarter-Phased Transit Curves

TCE 006697128-04 P= 15.823734 Days $T_0=142.635997$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

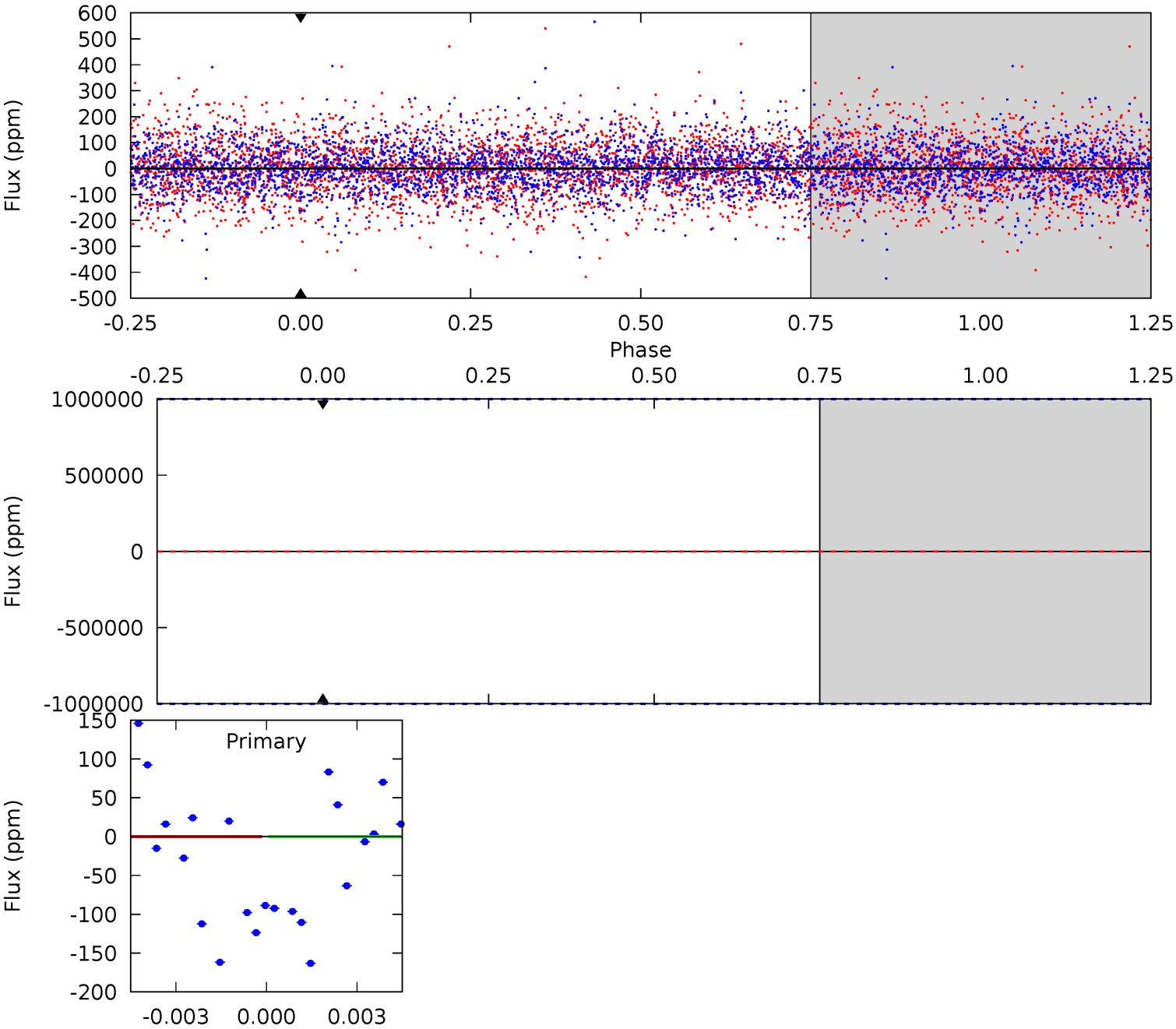
TCE 006697128-04 P= 15.823734 Days $T_0=142.505721$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-04, P = 15.823734 Days, E = 126.812263 Days

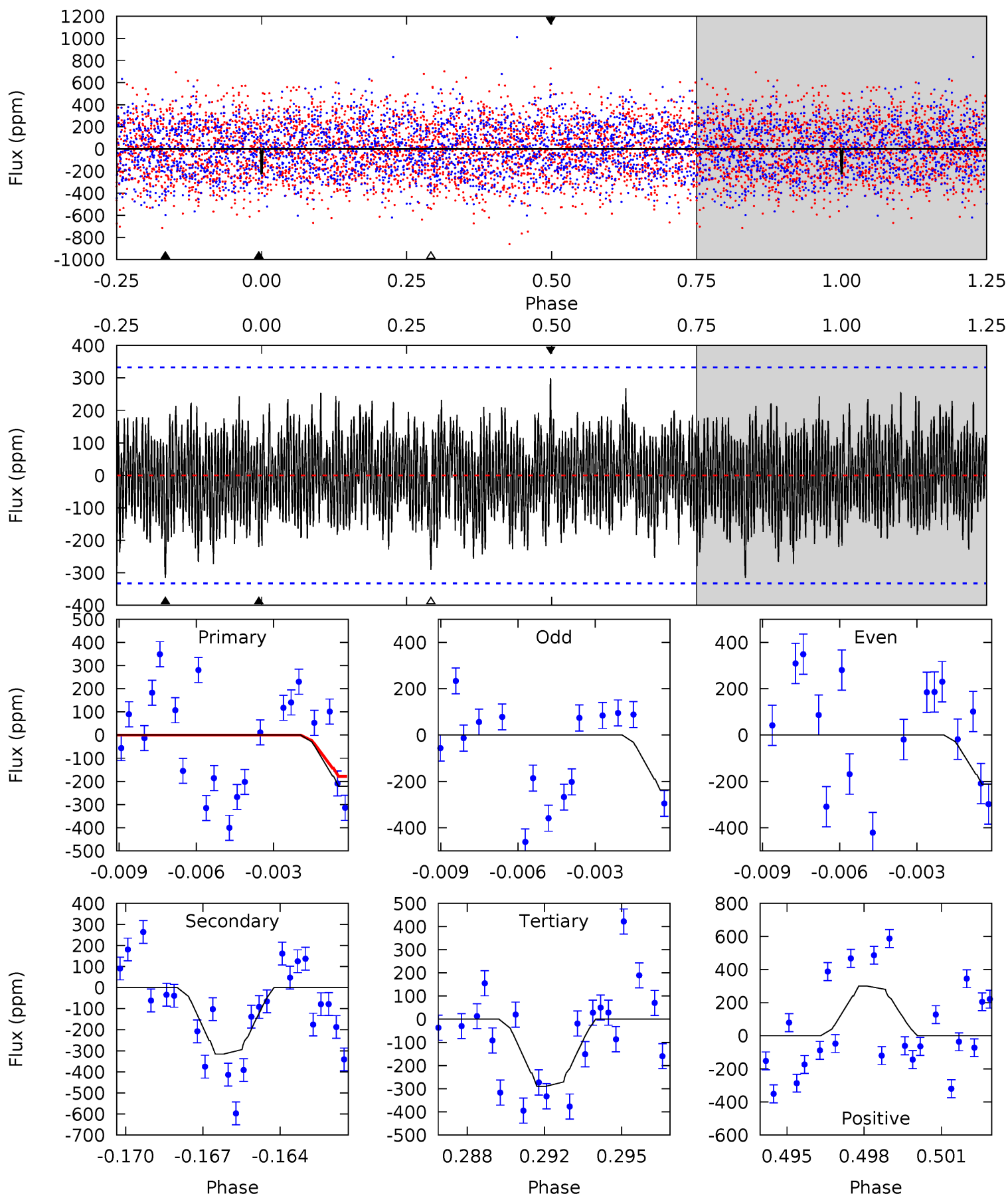
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006697128-04, P = 15.823734 Days, E = 126.681987 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.49	4.97	4.57	4.73	5.25	2.96	1.75	-1.09	-1.24	0.40	0.24	0.19	1.06	0.49	0.73



Stellar Parameters For KIC 006697128

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$15.45^{+15.74}_{-10.59}$	1681^{+87}_{-63}	5151^{+43743}_{-40801}	55^{+11251}_{-7191}
Alt.	-315 ± 63	$15.83^{+17.53}_{-11.28}$	1679^{+84}_{-63}	3907^{+2728}_{-844}	14^{+154}_{-11}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

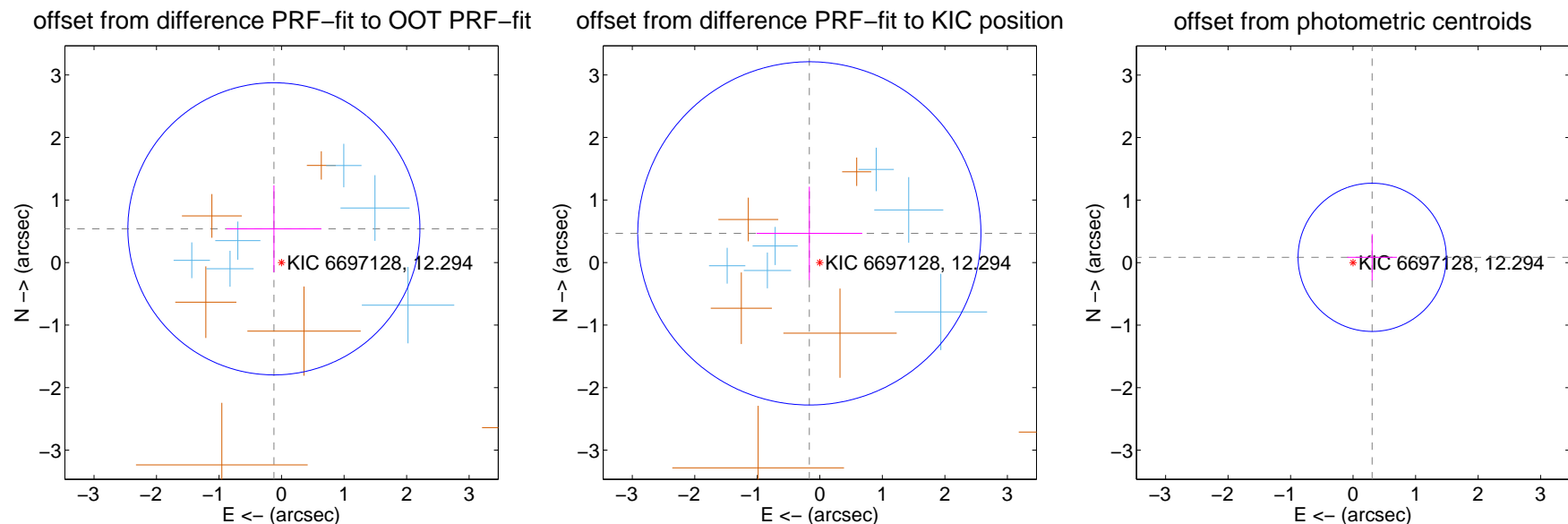
DV Centroid Data

Supplemental centroid analysis for 006697128-04. Kepler magnitude: 12.29. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

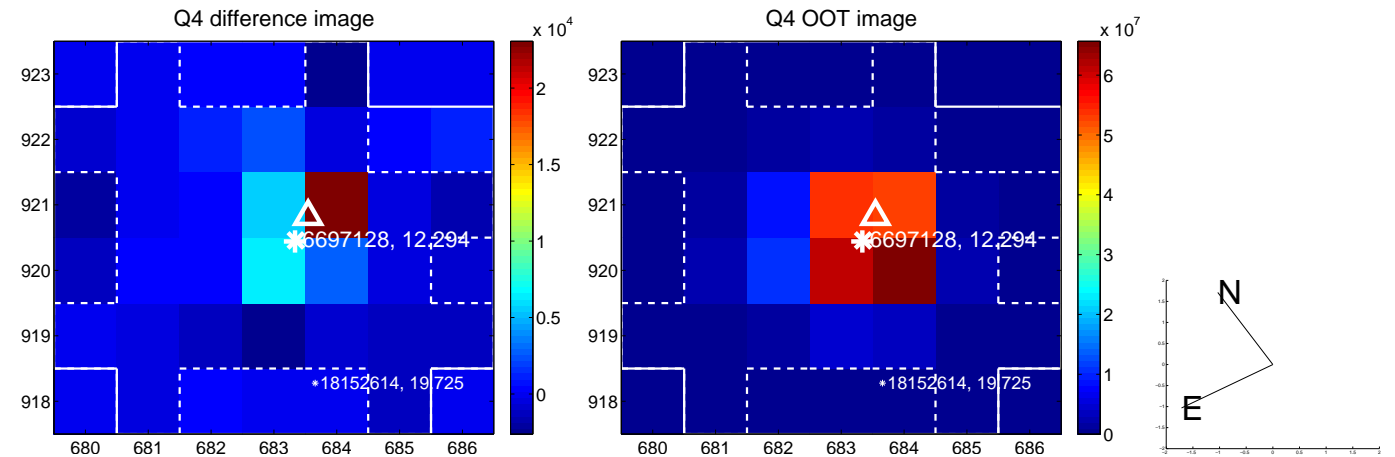
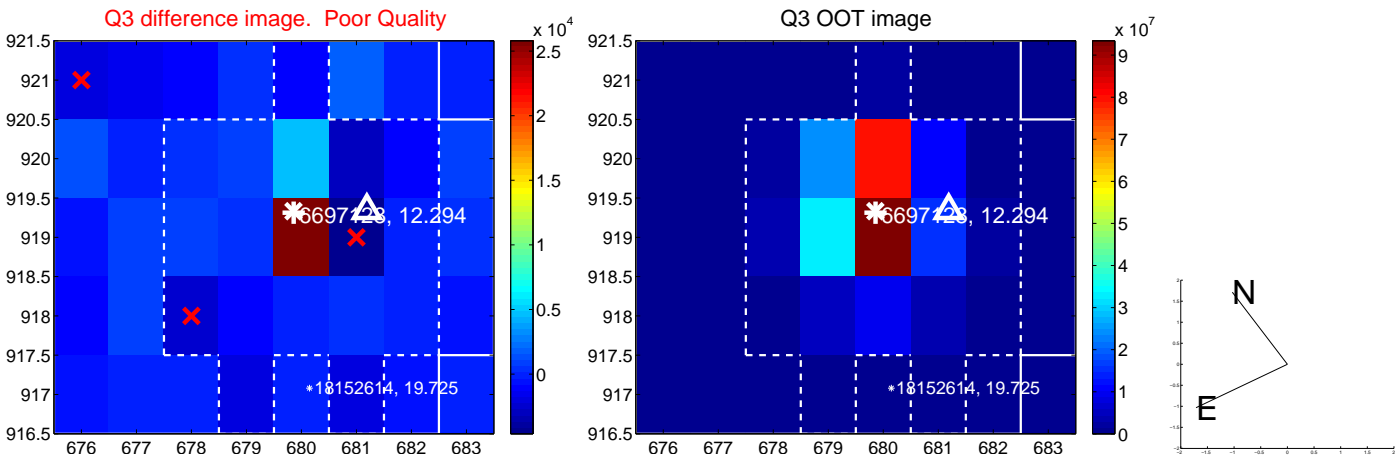
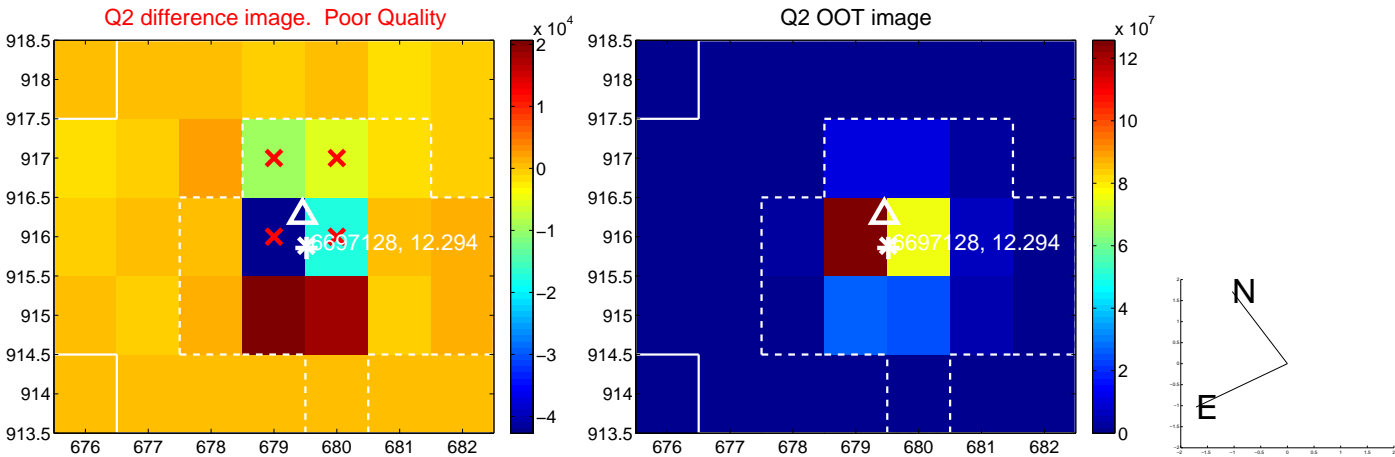
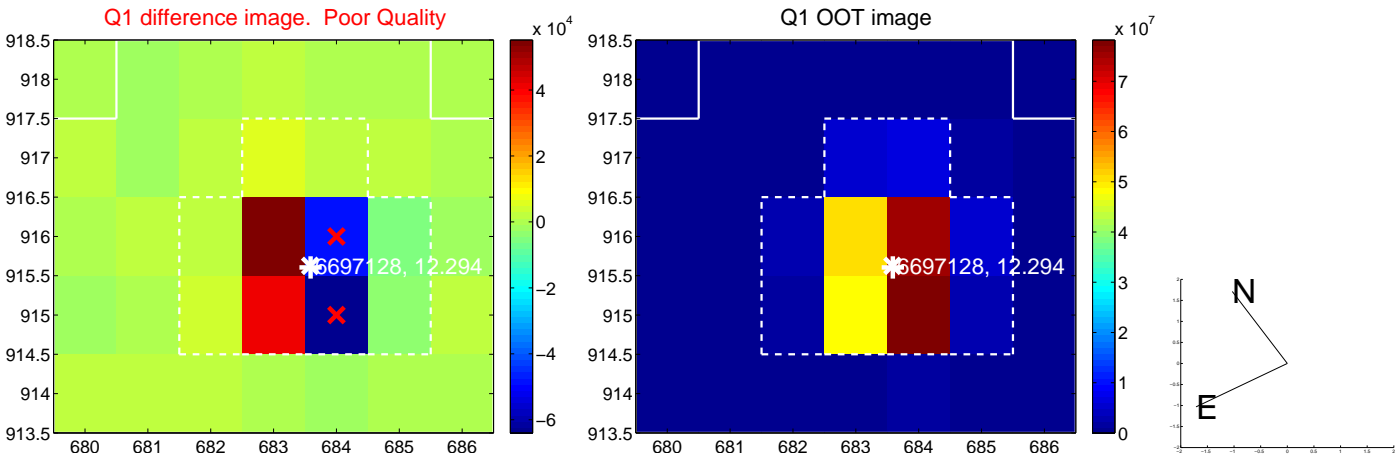
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.553 ± 0.778	0.71	0.123 ± 0.758	0.539 ± 0.695
PRF-fit source offset from KIC position	0.496 ± 0.915	0.54	0.168 ± 0.846	0.466 ± 0.747
photometric centroid source offset	0.32 ± 0.40	0.80	-0.30 ± 0.40	0.08 ± 0.37

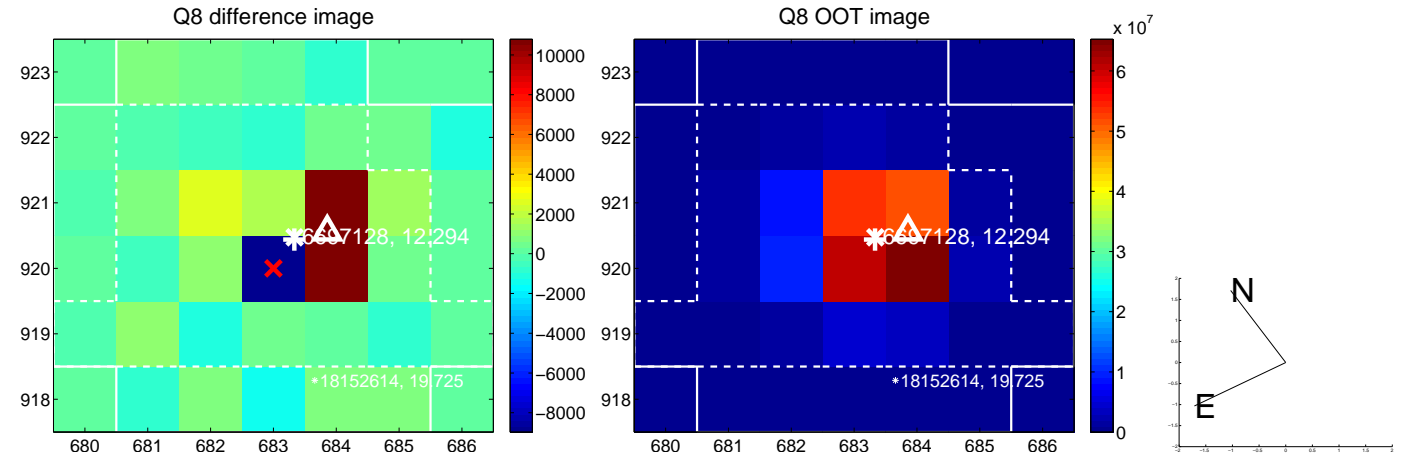
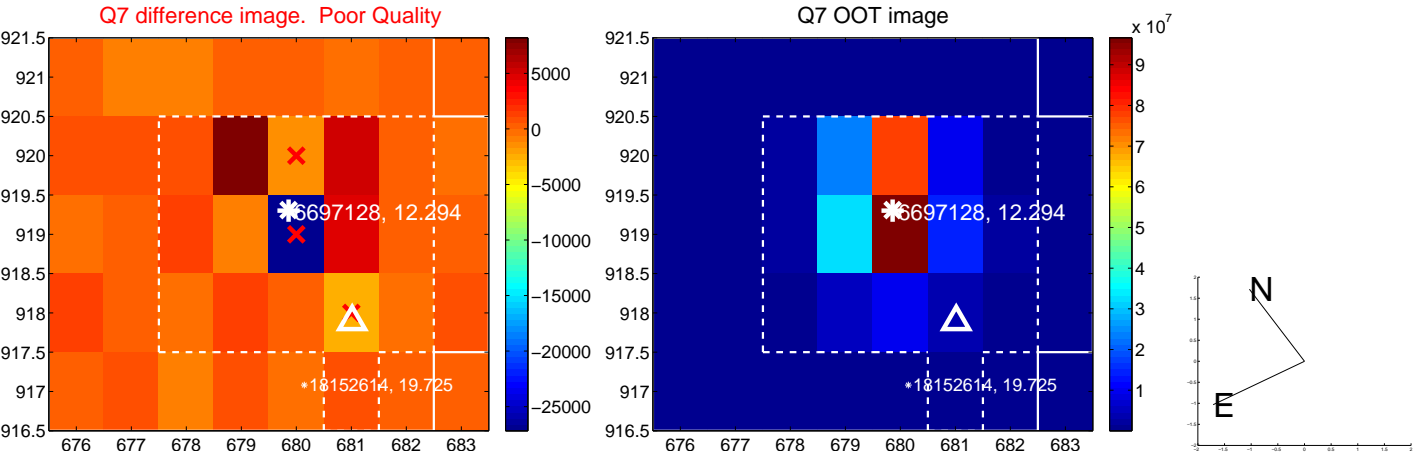
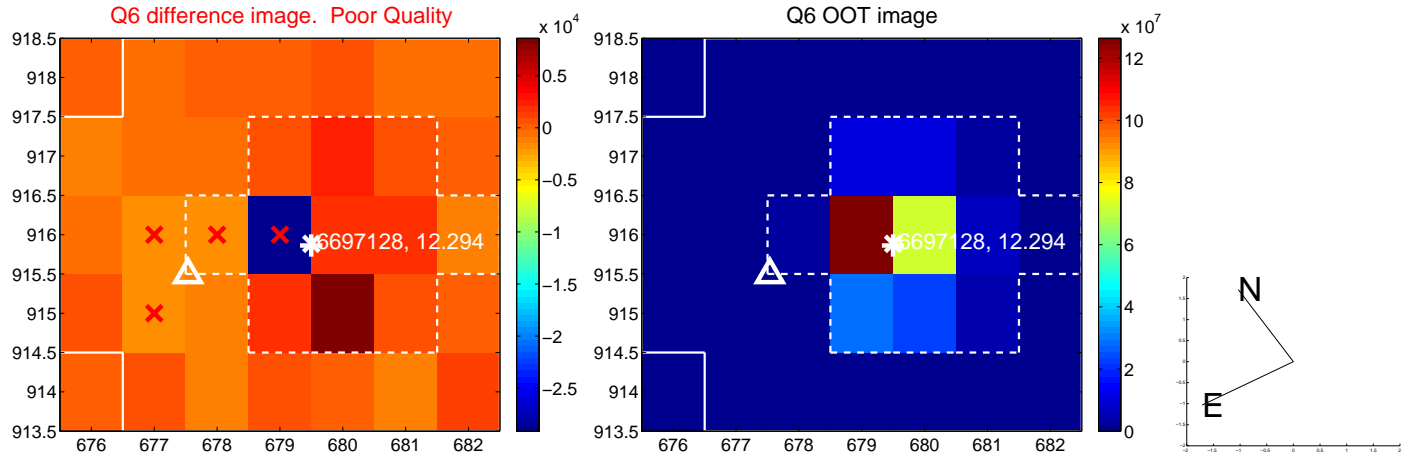
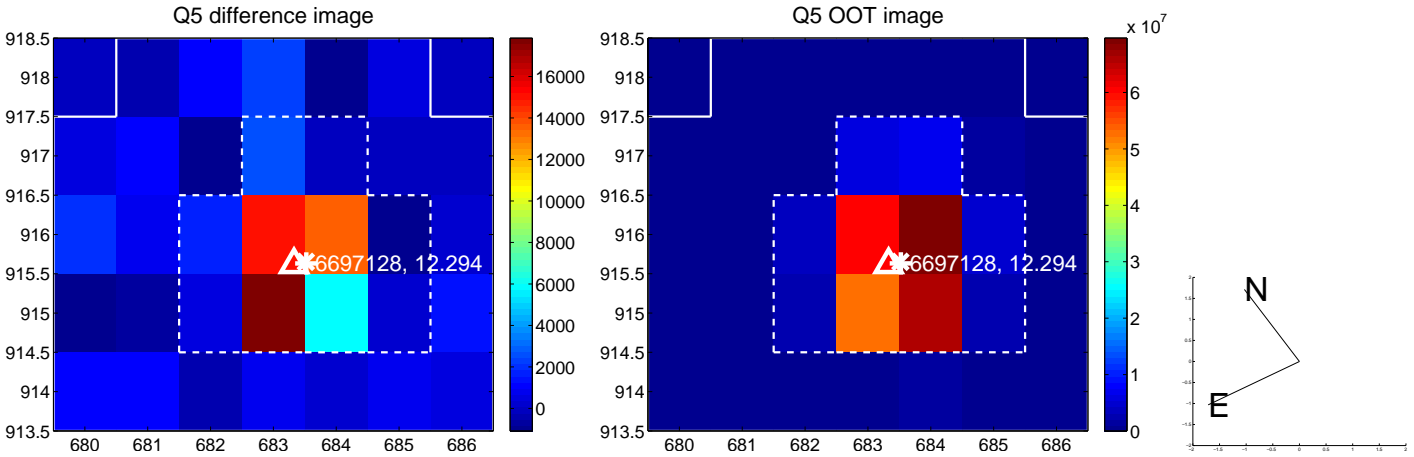


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

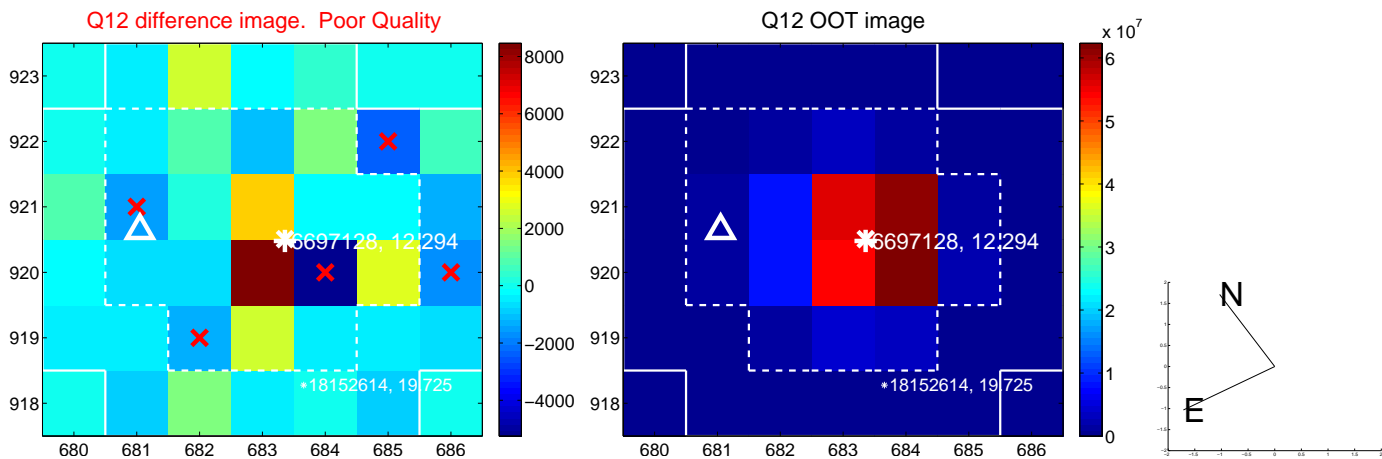
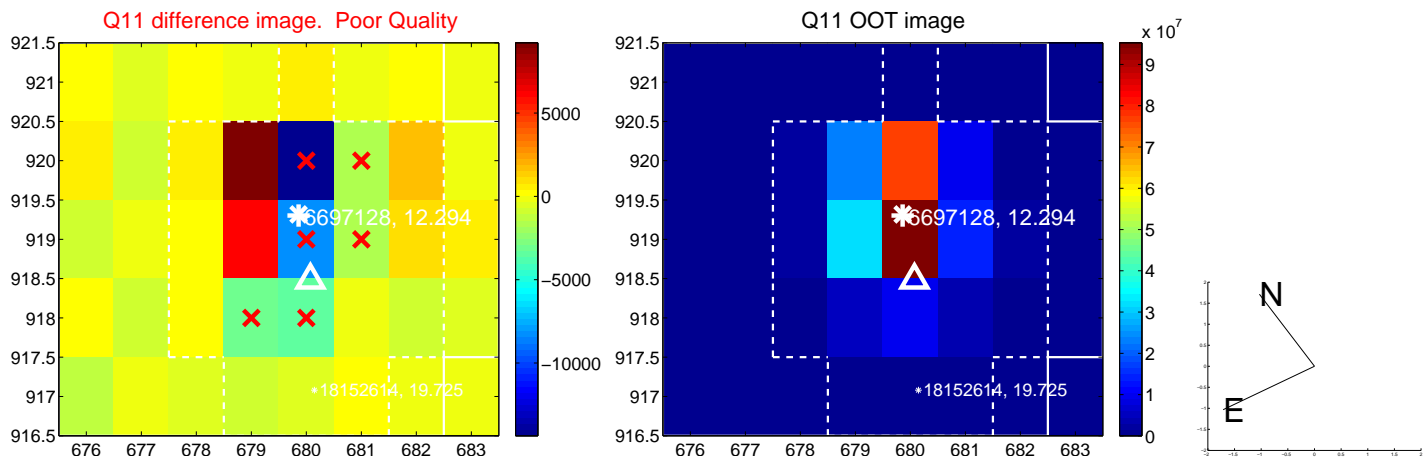
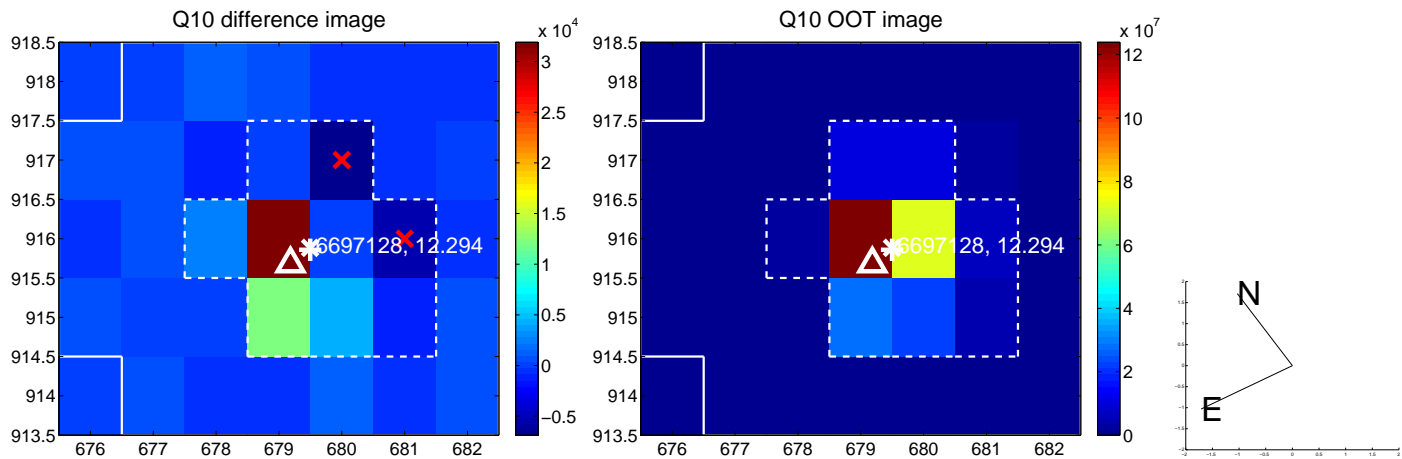
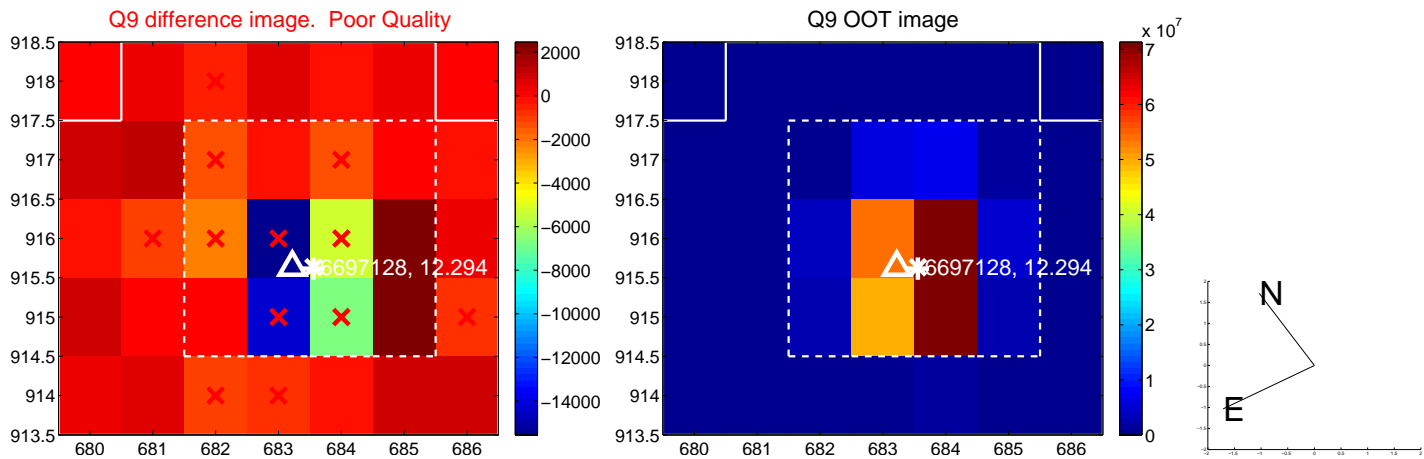
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



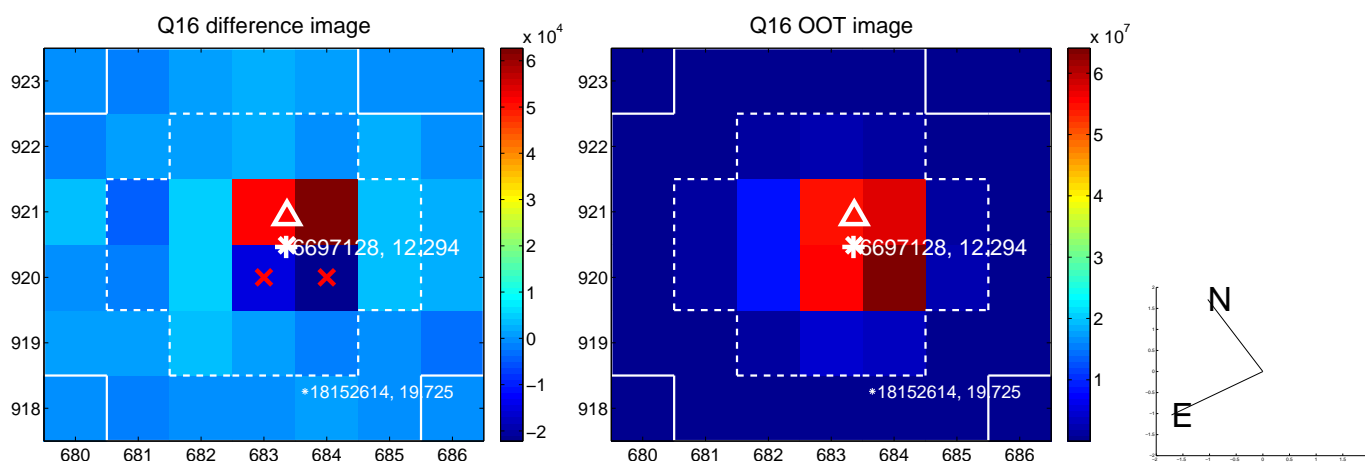
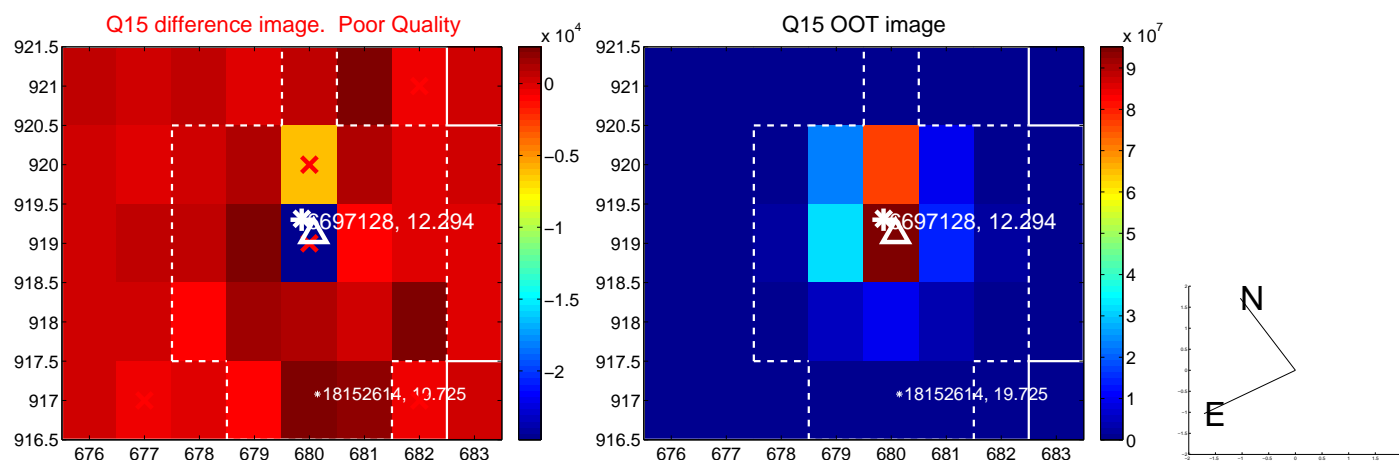
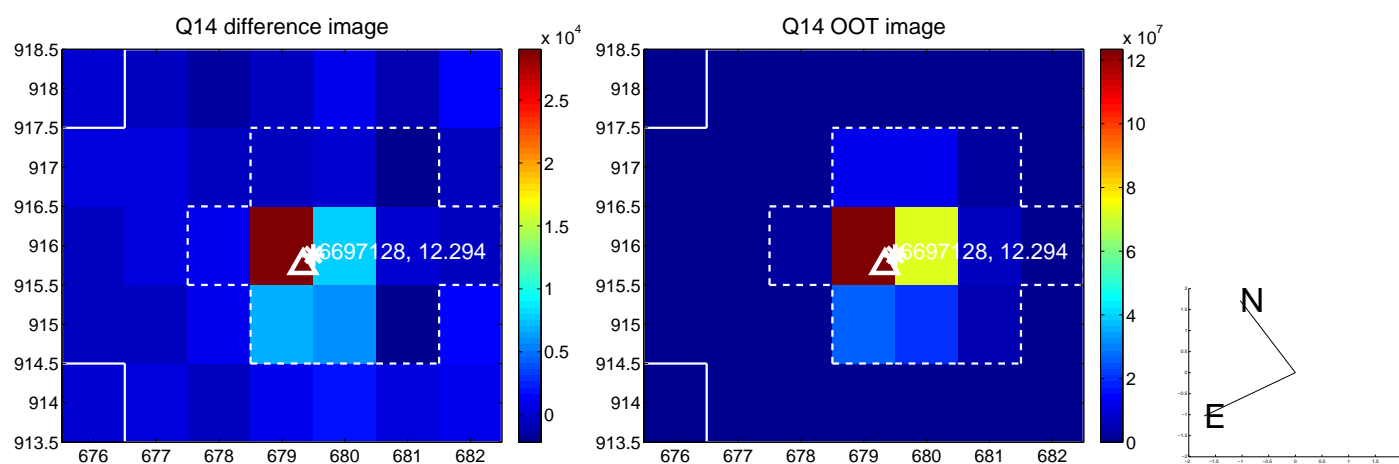
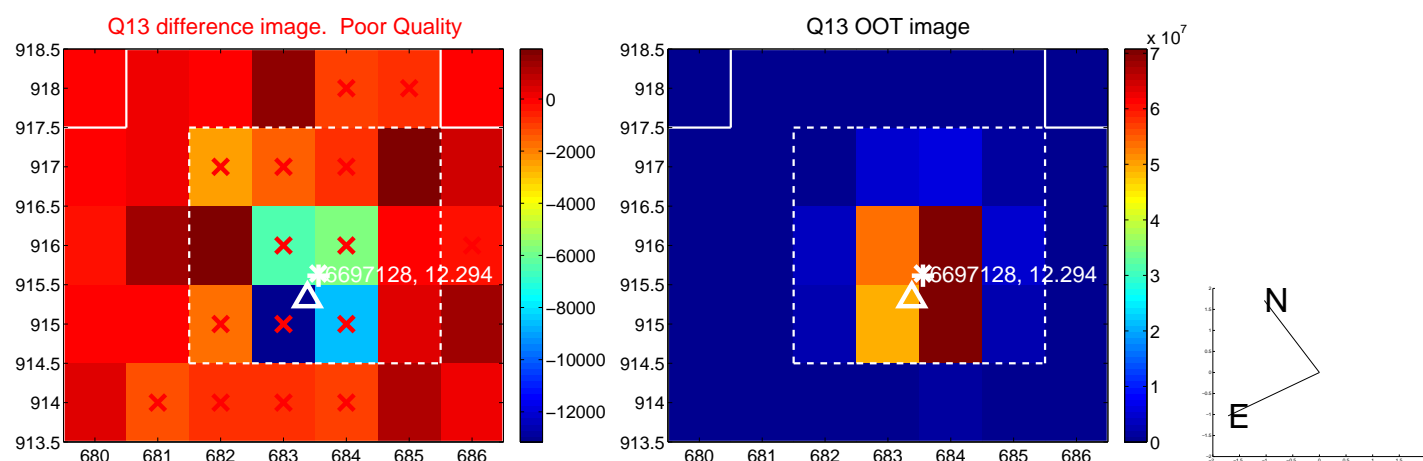
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



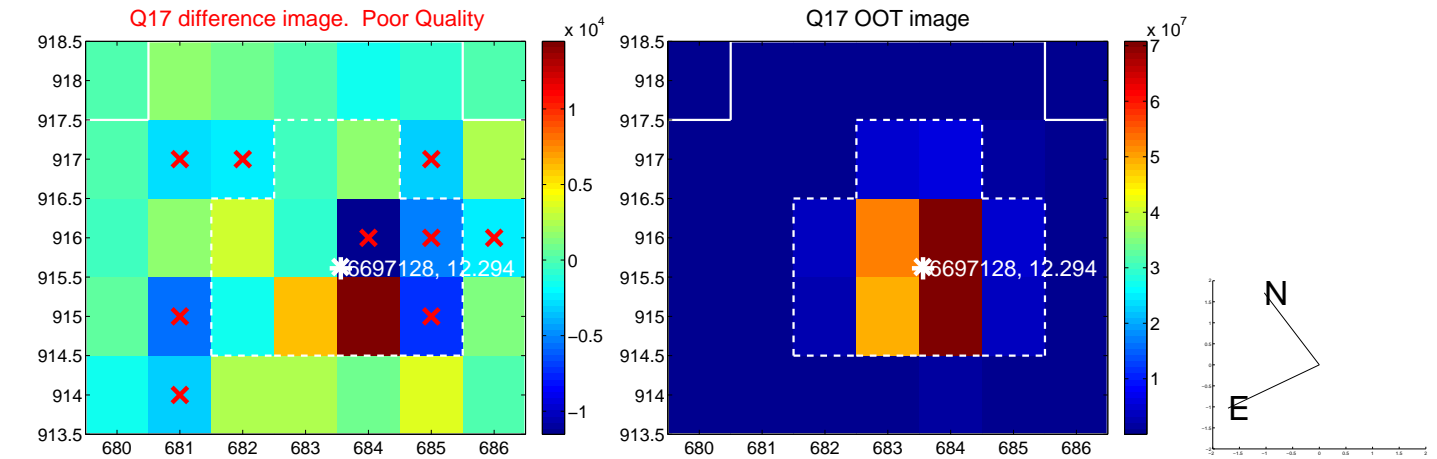
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



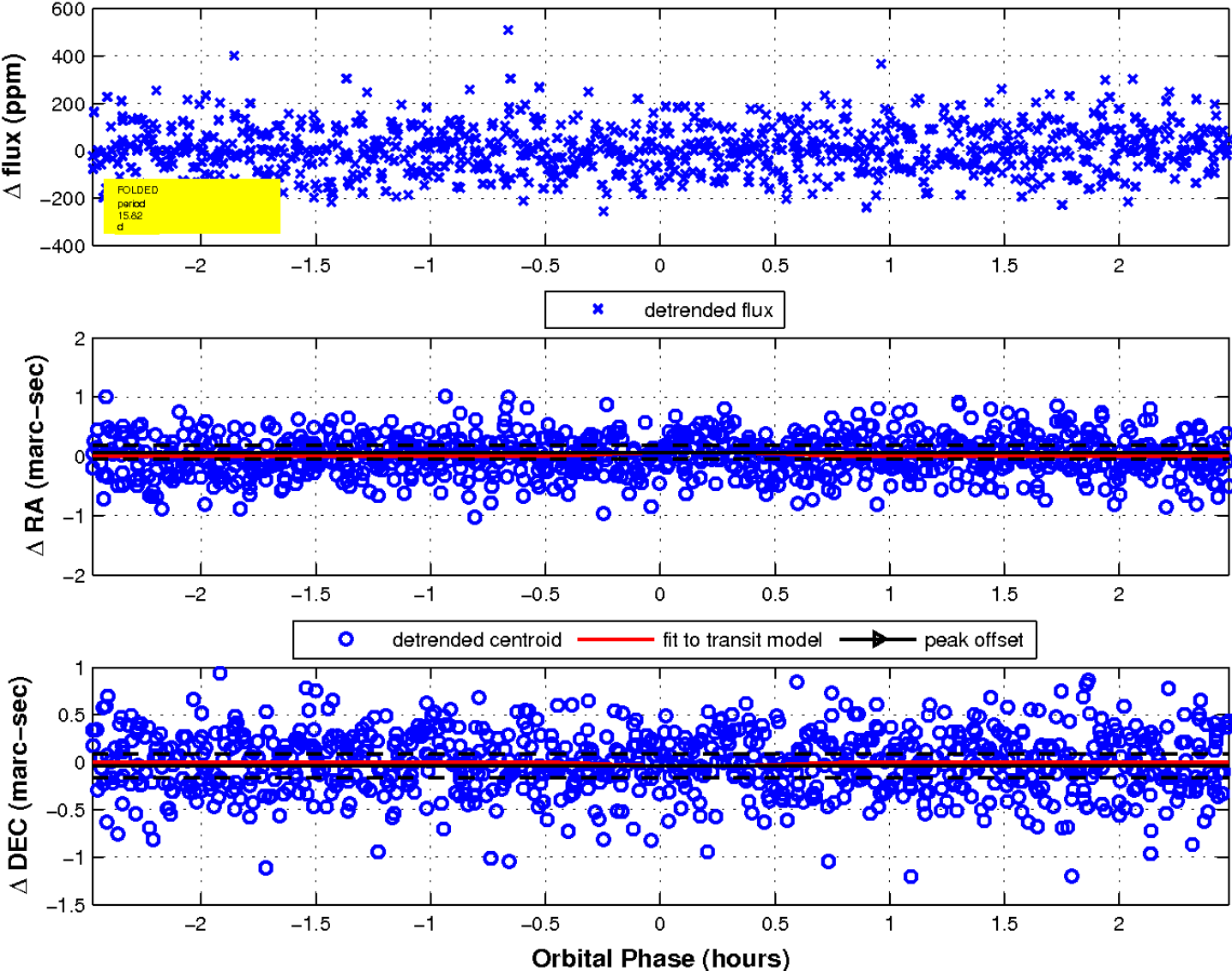
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

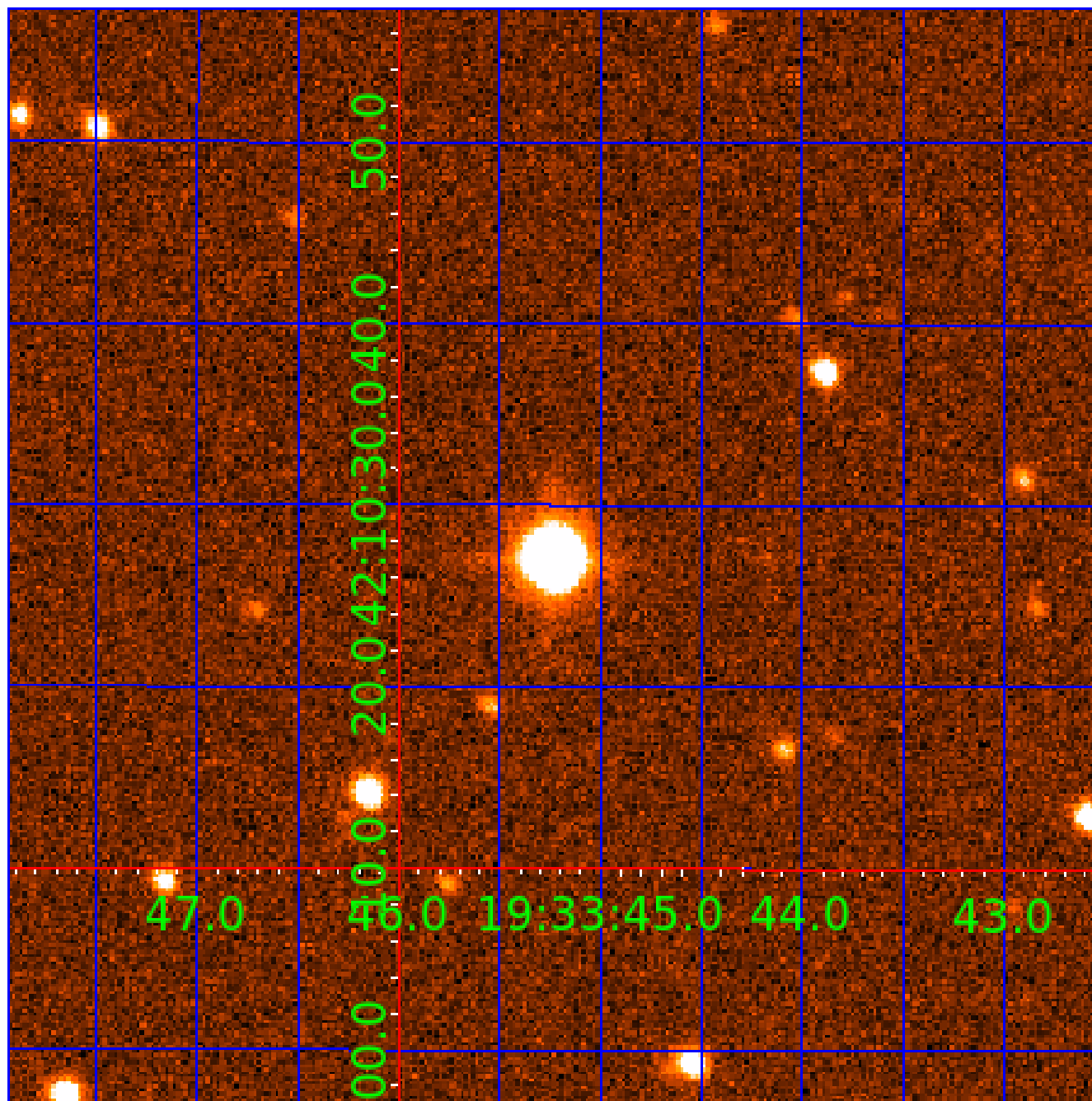


fluxWeightedCentroids, Planet 4 of 7



UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

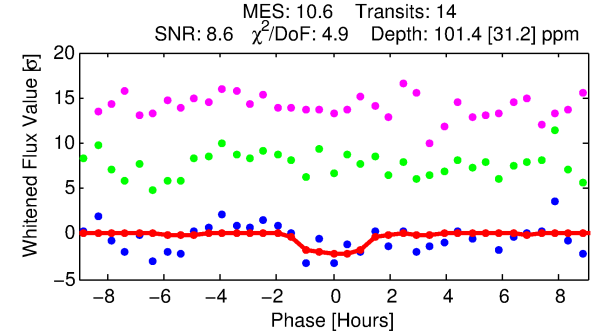
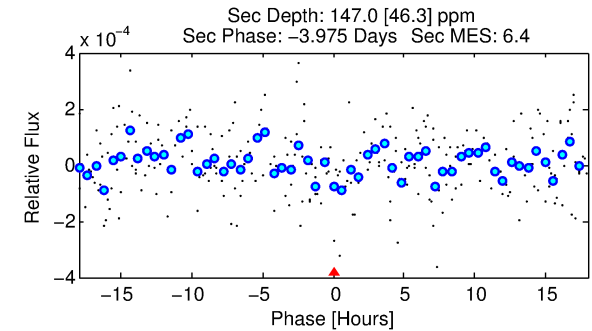
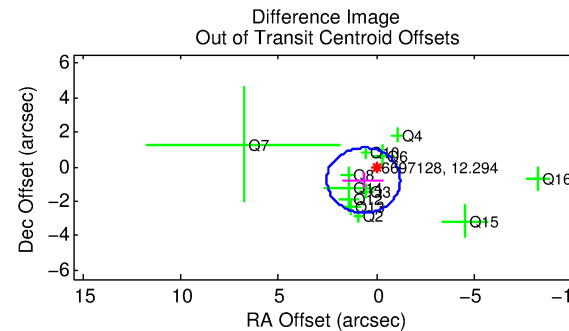
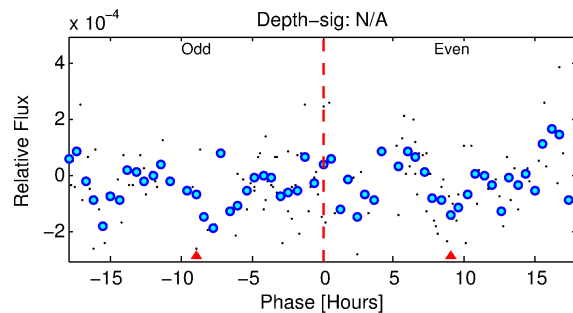
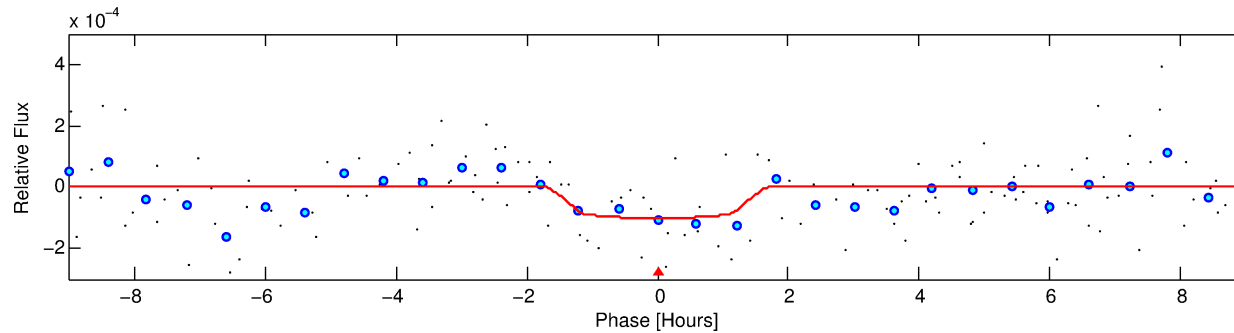
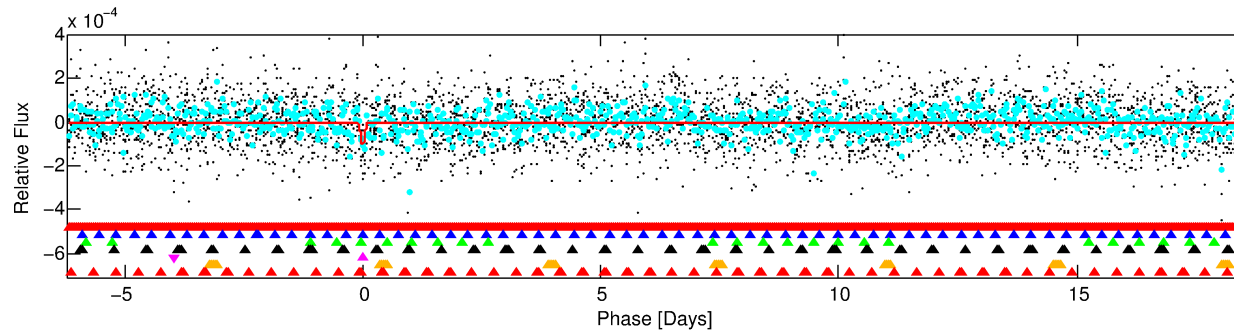
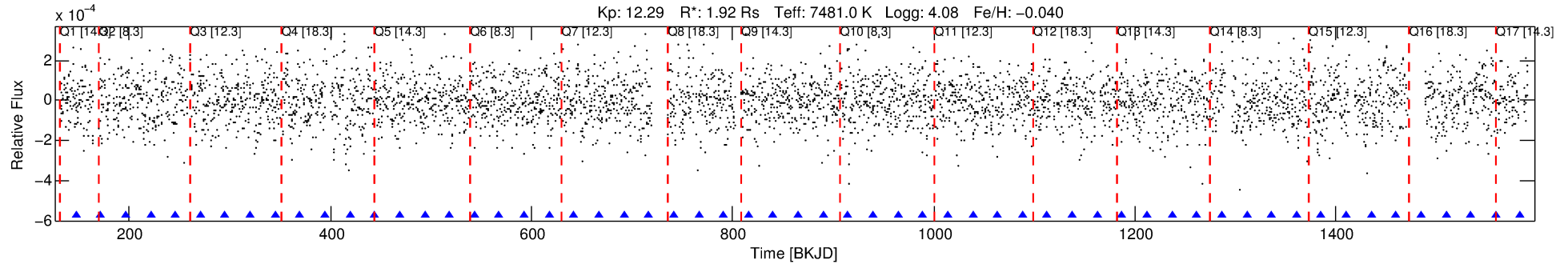
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-05

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 5 of 7 Period: 24.769 d



DV Fit Results:

Period = 24.76863 [0.00083] d
Epoch = 147.0142 [0.0264] BKJD
Rp/R* = 0.0107 [0.0143]
a/R* = 29.03 [251.20]
b = 0.90 [1.86]
Seff = 269.72 [66.38]
Teq = 1033 [64] K
Rp = 2.23 [3.02] Re
a = 0.1957 [0.0325] AU
Ag = 620.67 [1679.38] [0.37σ]
Teffp = 7975 [5374] K [1.29σ]

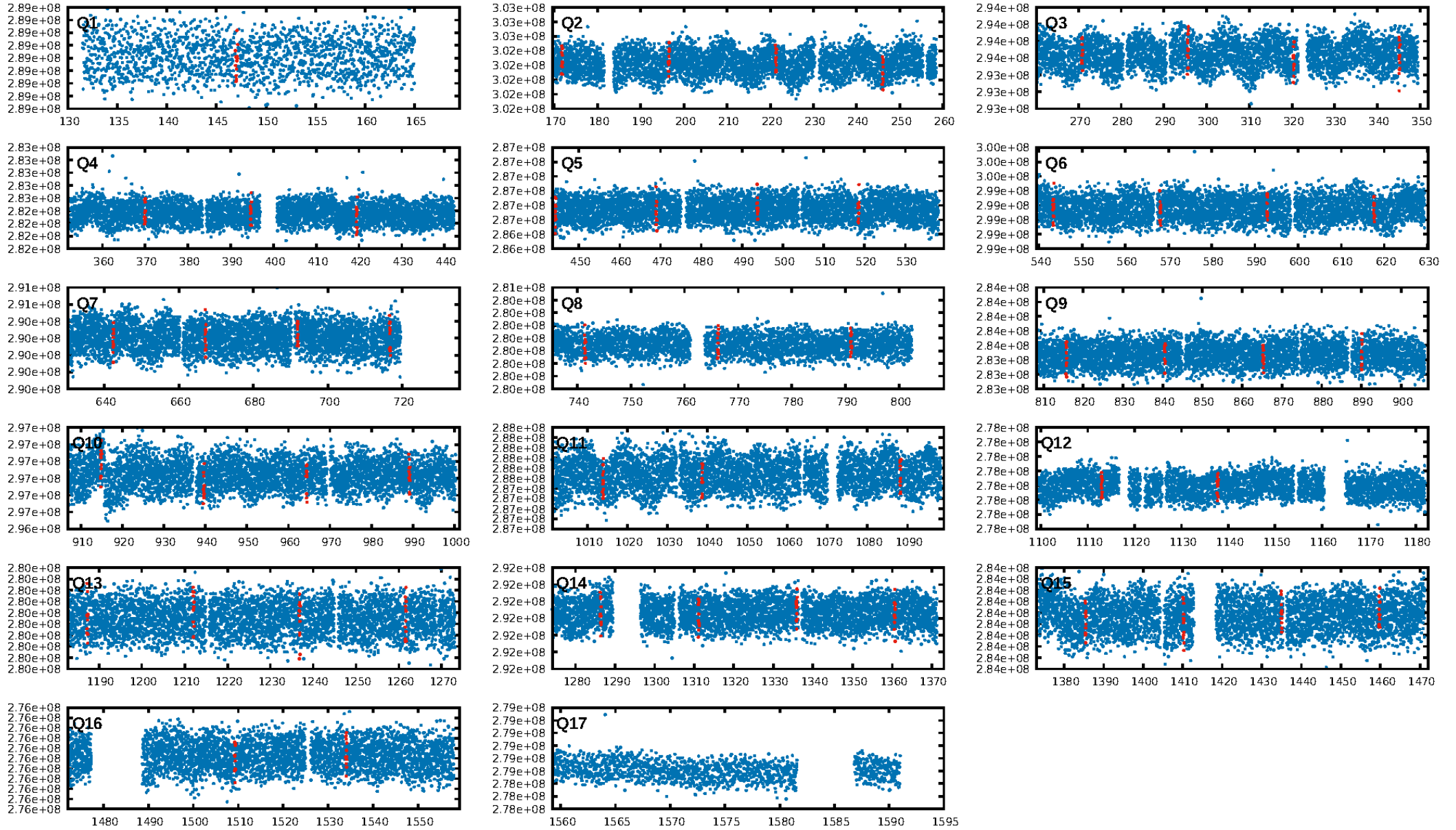
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [24.66σ]
LongPeriod-sig: 100.0% [72.28σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 78.8%
Bootstrap-pfa: 1.49e-09
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: -0.06294
Centroid-sig: 2.4%
Centroid-so: 1.135 arcsec [1.89σ]
OotOffset-rm: 1.028 arcsec [1.64σ]
KicOffset-rm: 1.112 arcsec [1.73σ]
OotOffset-st: 4/3/4/1 [12]
KicOffset-st: 4/3/4/1 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 0.00 [0/16]

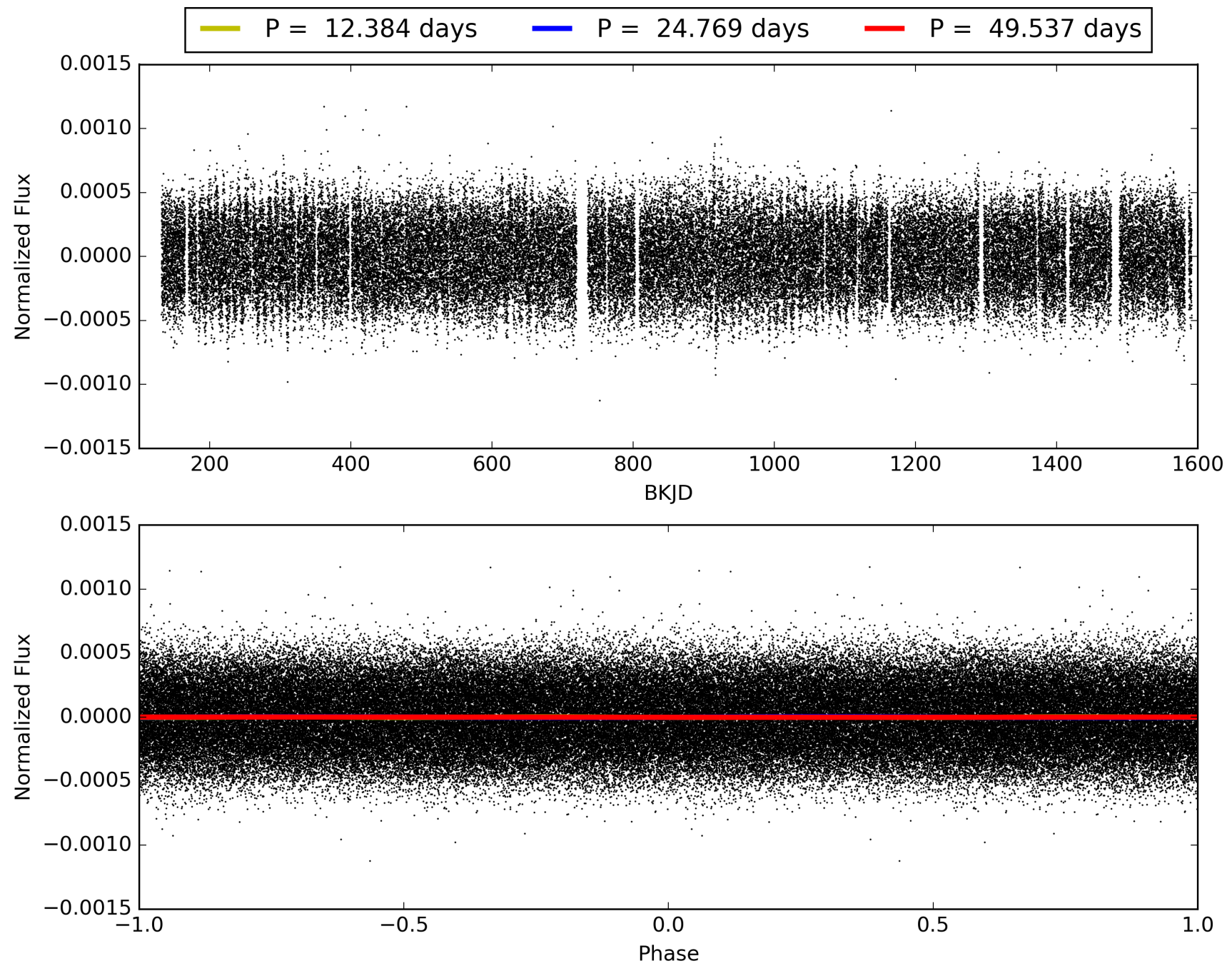
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:35:03 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-05, PDC Light Curves

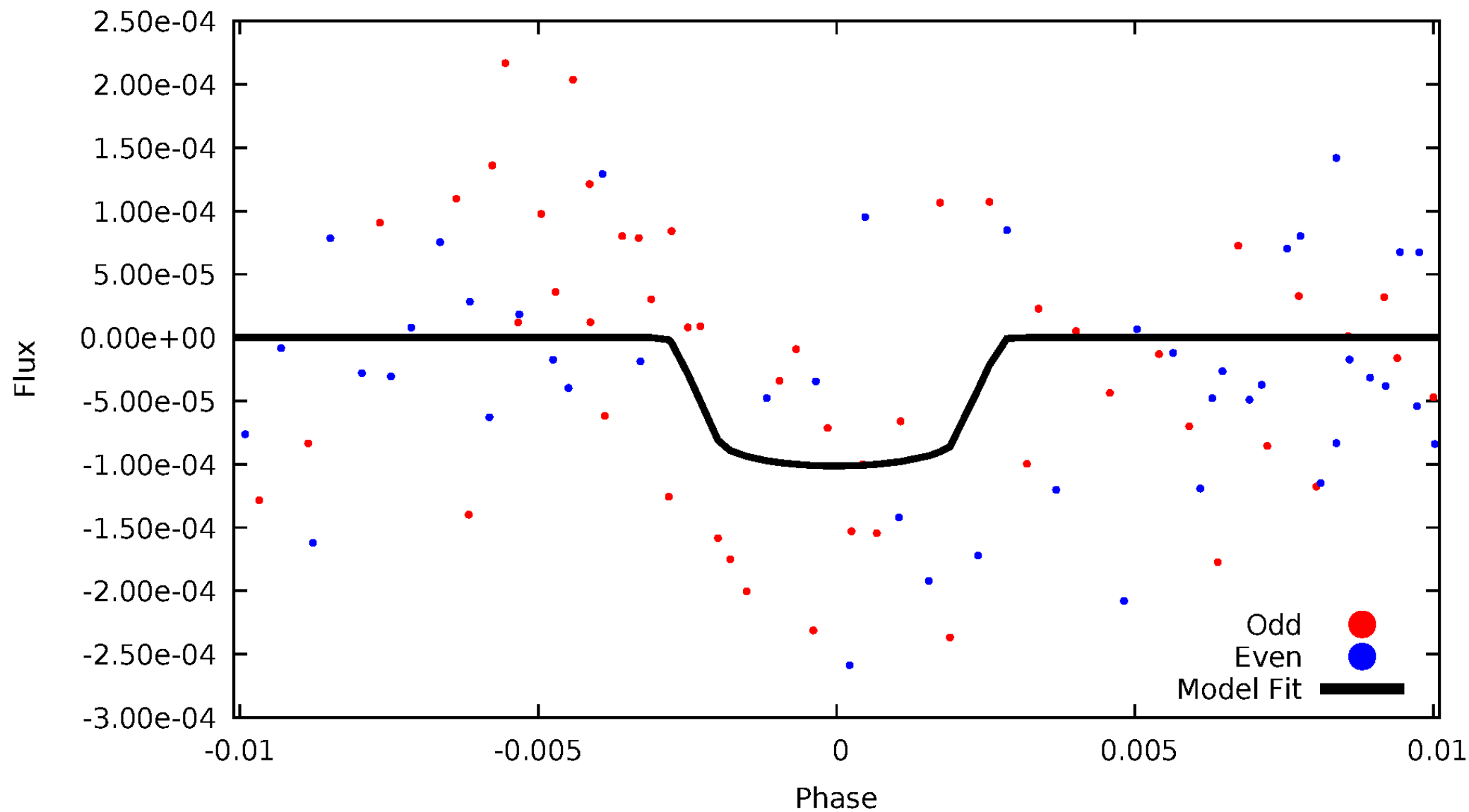


TCE 006697128-05



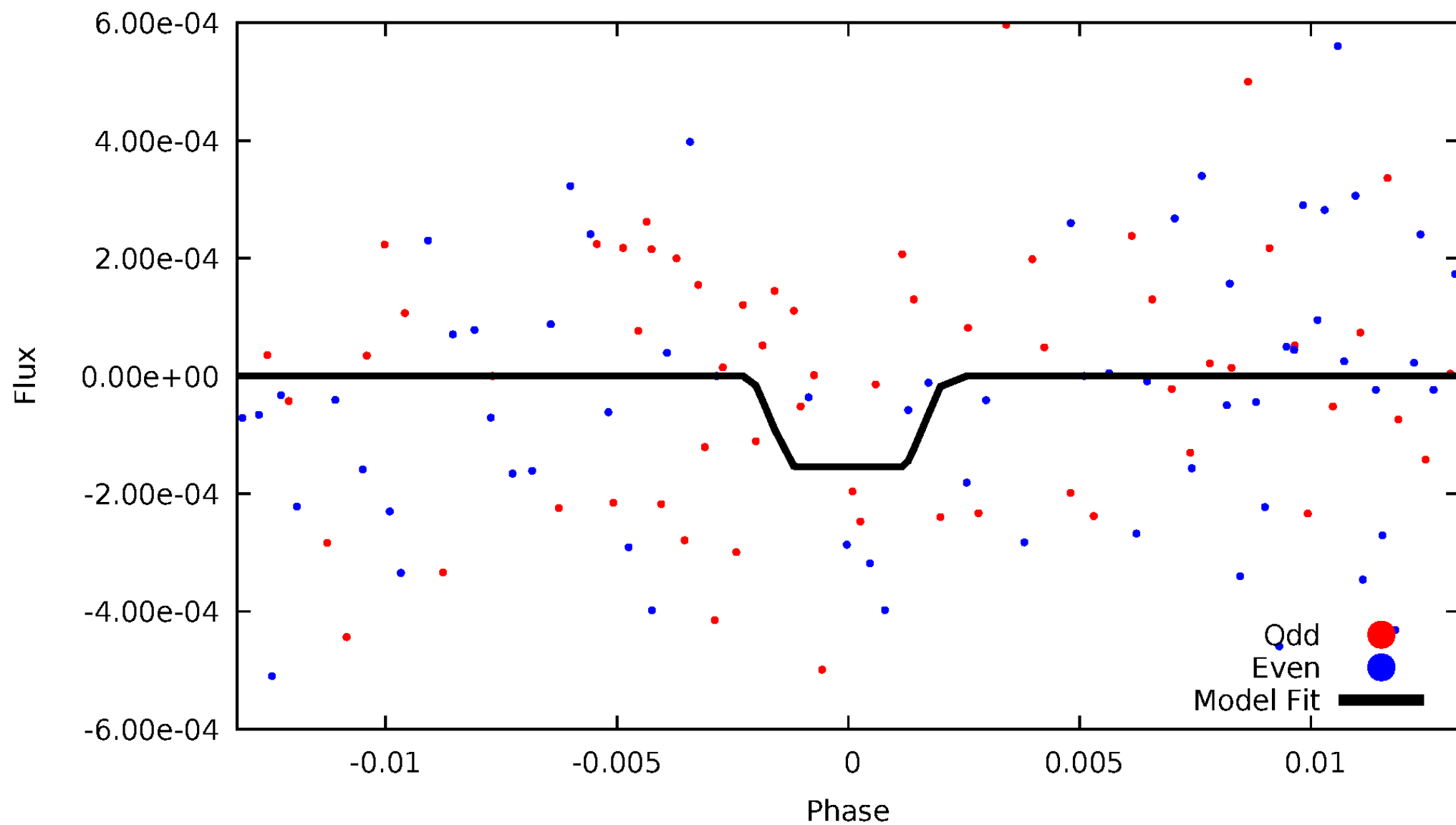
DV Odd/Even

TCE 006697128-05



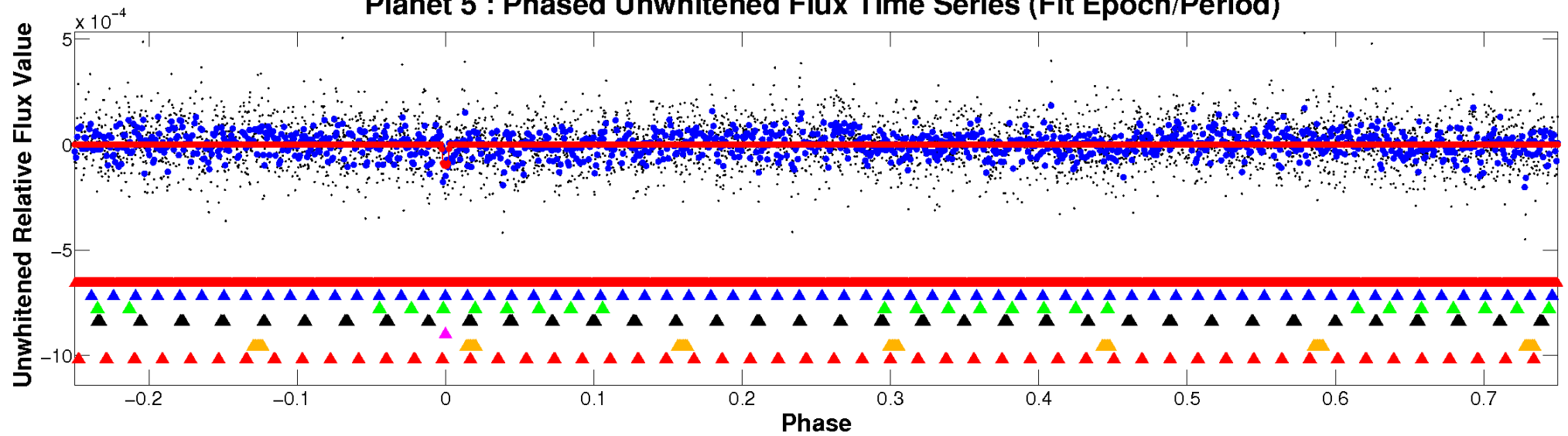
ALT Odd/Even

TCE 006697128-05

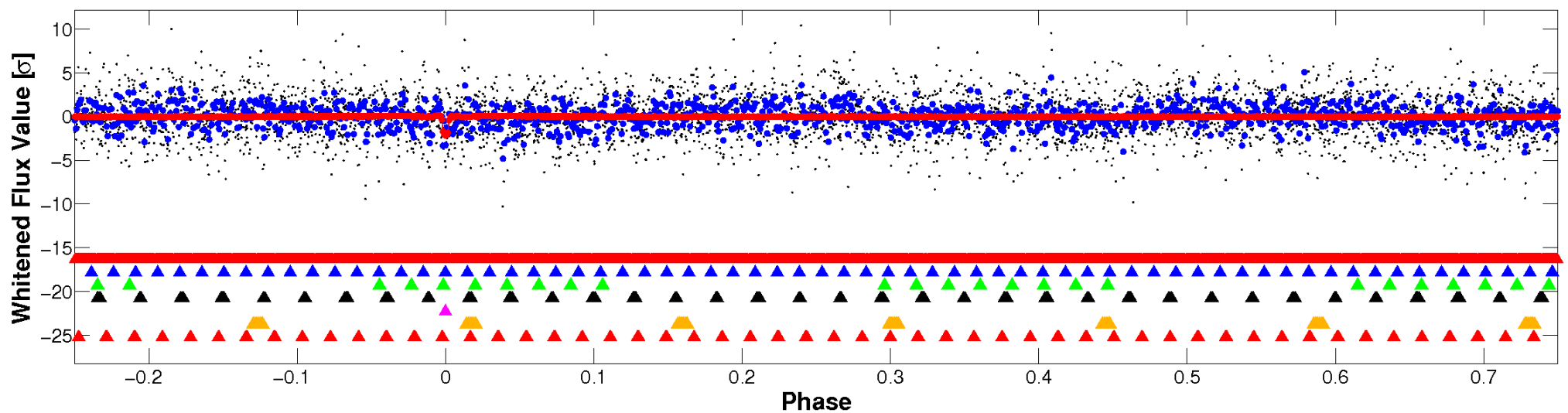


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

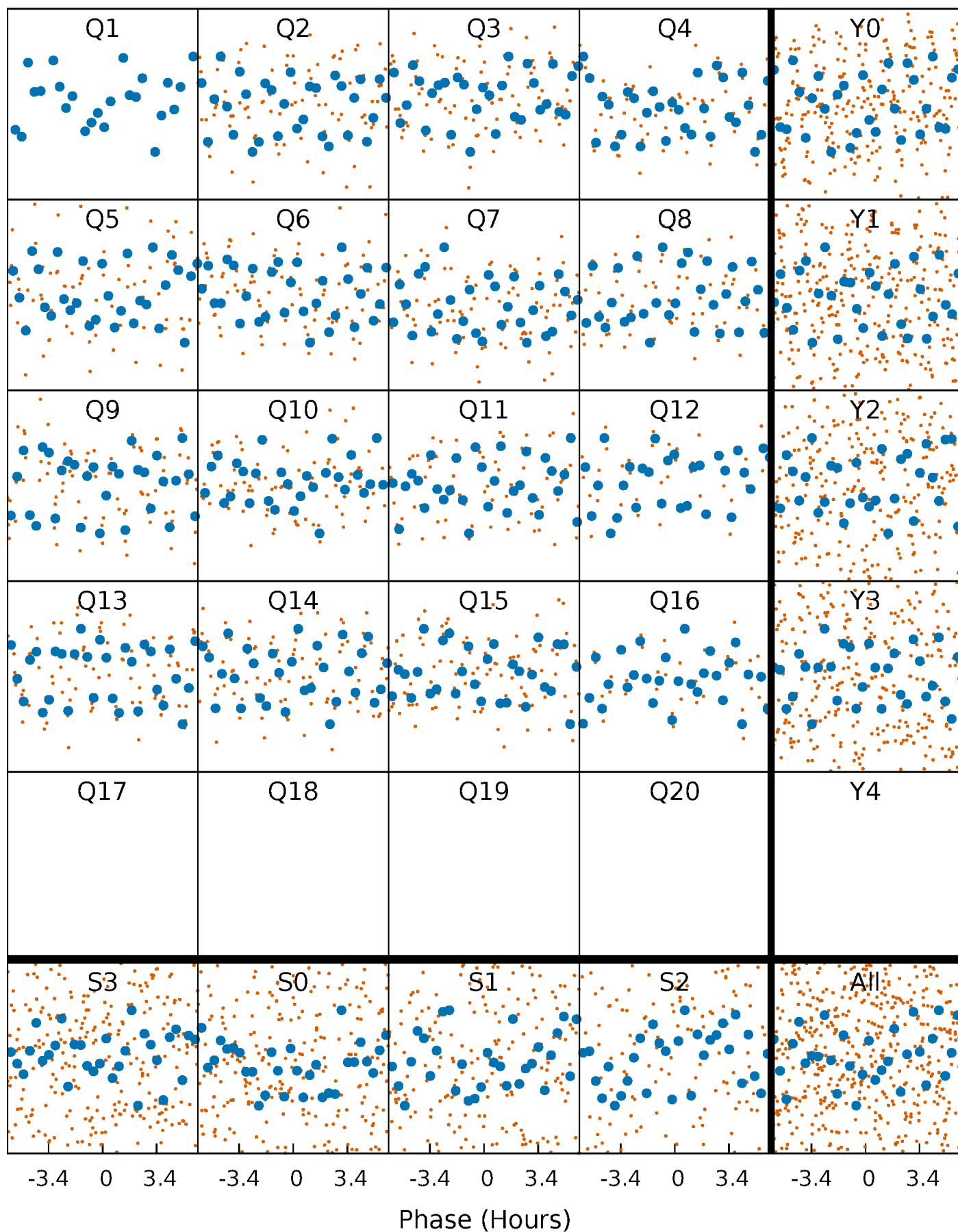


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



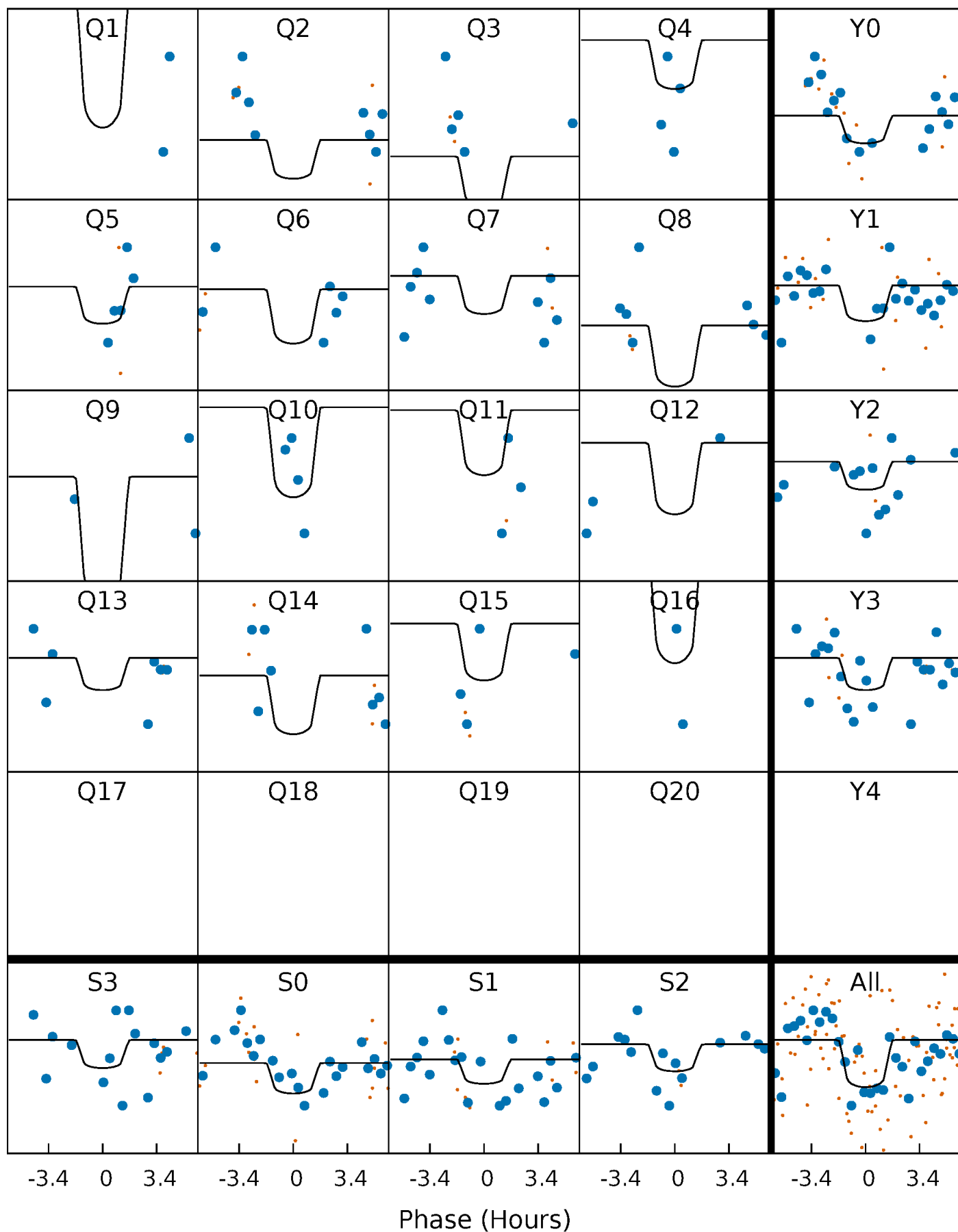
PDC Quarter-Phased Transit Curves

TCE 006697128-05 $P = 24.768634$ Days $T_0 = 147.014173$ (BKJD)



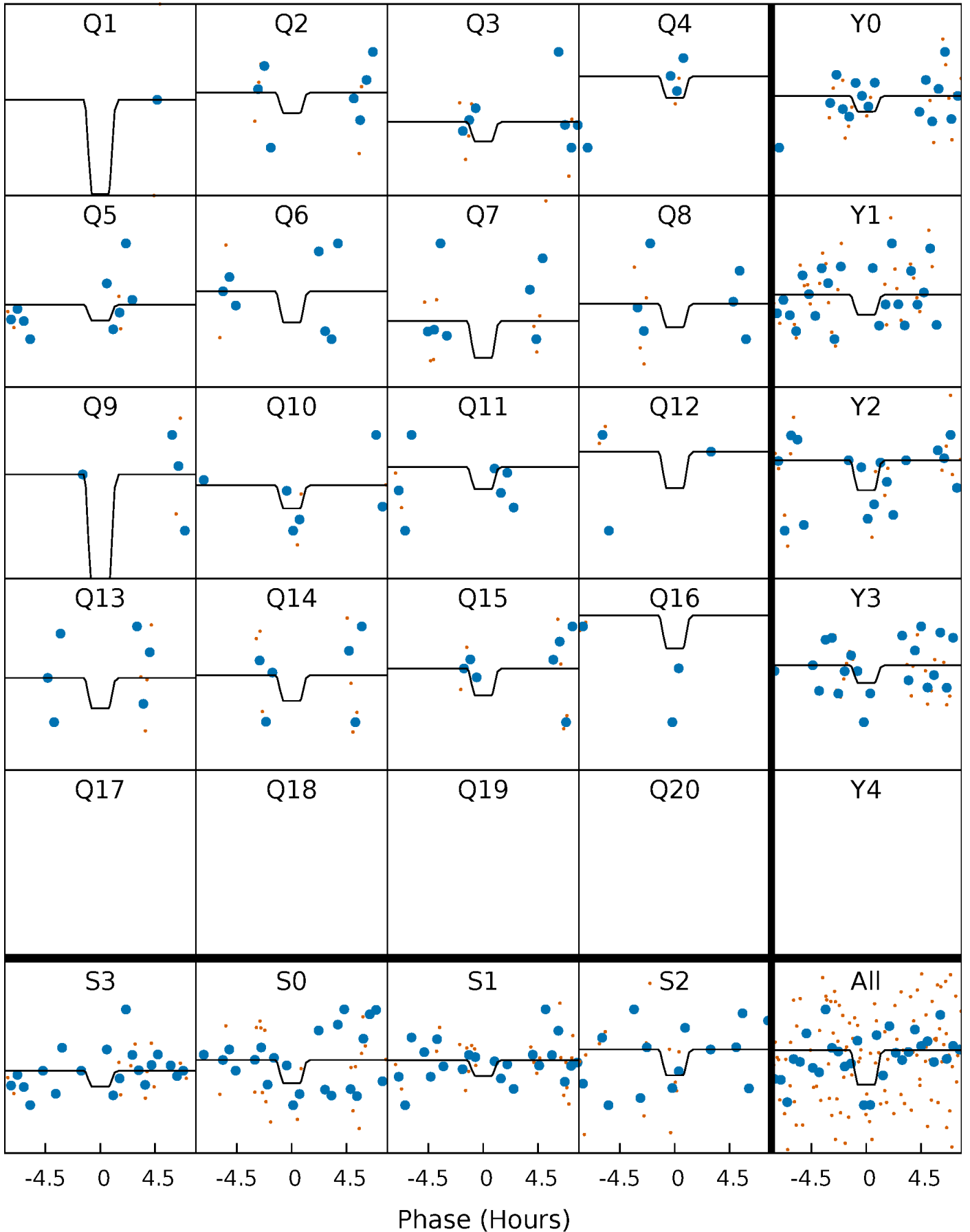
DV Quarter-Phased Transit Curves

TCE 006697128-05 P= 24.768634 Days $T_0=147.014173$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

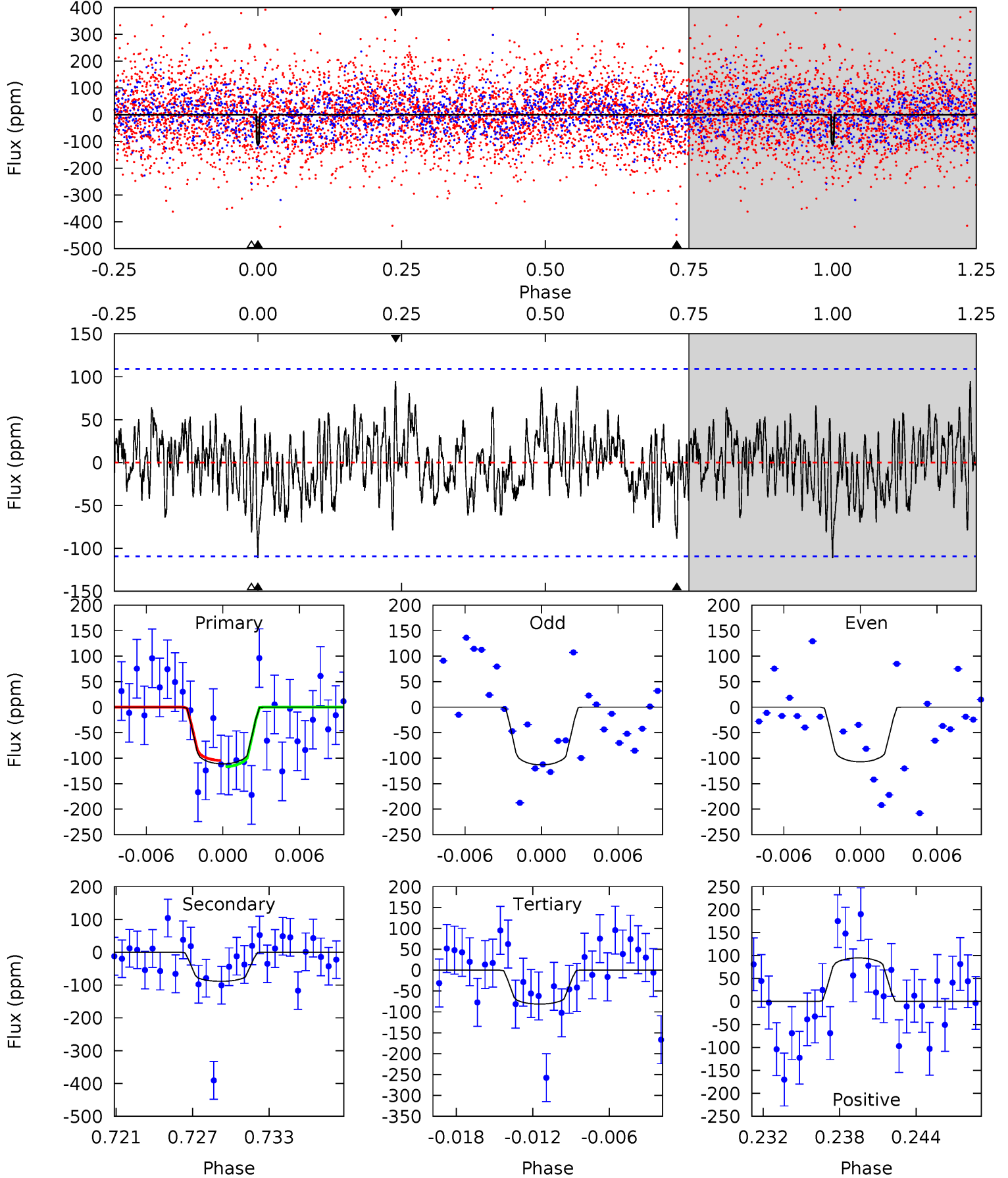
TCE 006697128-05 P= 24.769420 Days $T_0=146.981286$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-05, P = 24.768634 Days, E = 122.245539 Days

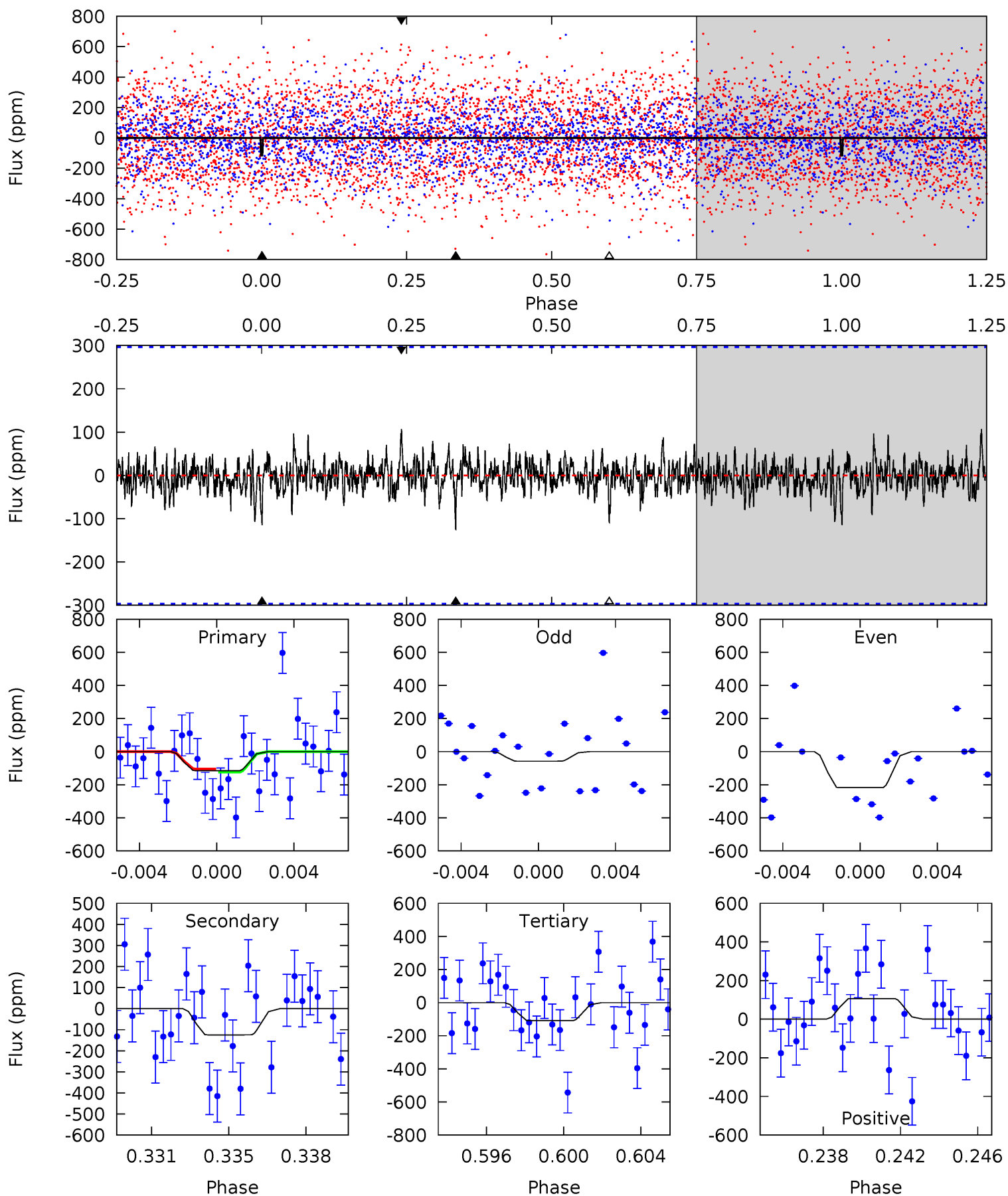
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.21	4.16	3.81	4.45	5.12	2.75	1.41	1.40	0.77	0.35	-0.29	0.13	0.85	0.46	0.29



Alt Model-Shift Uniqueness Test

006697128-05, P = 24.769420 Days, E = 122.211866 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.02	2.19	1.91	1.87	5.21	2.89	0.51	0.11	0.15	0.28	0.31	1.36	1.16	0.46	0.16



Stellar Parameters For KIC 006697128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 21	$3.14^{+2.60}_{-2.07}$	1452^{+71}_{-62}	5884^{+5414}_{-1405}	184^{+1310}_{-130}
Alt.	-125 ± 57	$3.32^{+2.88}_{-2.18}$	1450^{+71}_{-56}	6174^{+5918}_{-1718}	232^{+1581}_{-181}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

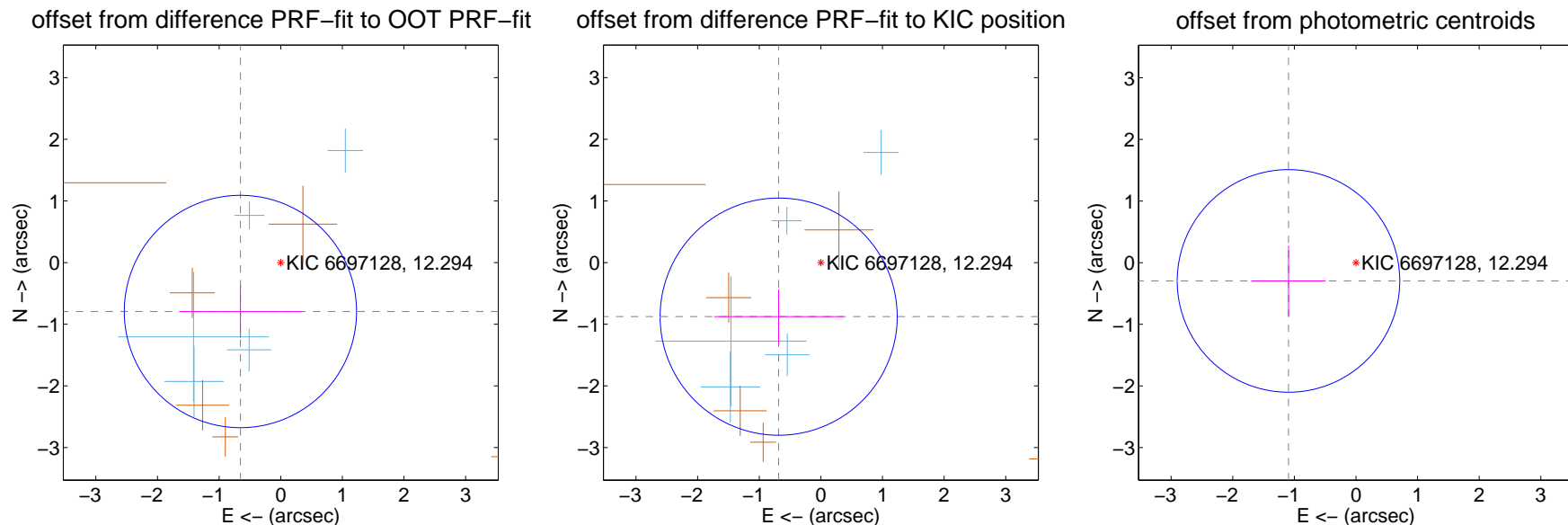
DV Centroid Data

Supplemental centroid analysis for 006697128-05. Kepler magnitude: 12.29. Transit SNR 8.56

There are 5 quarters with good PRF difference image offsets

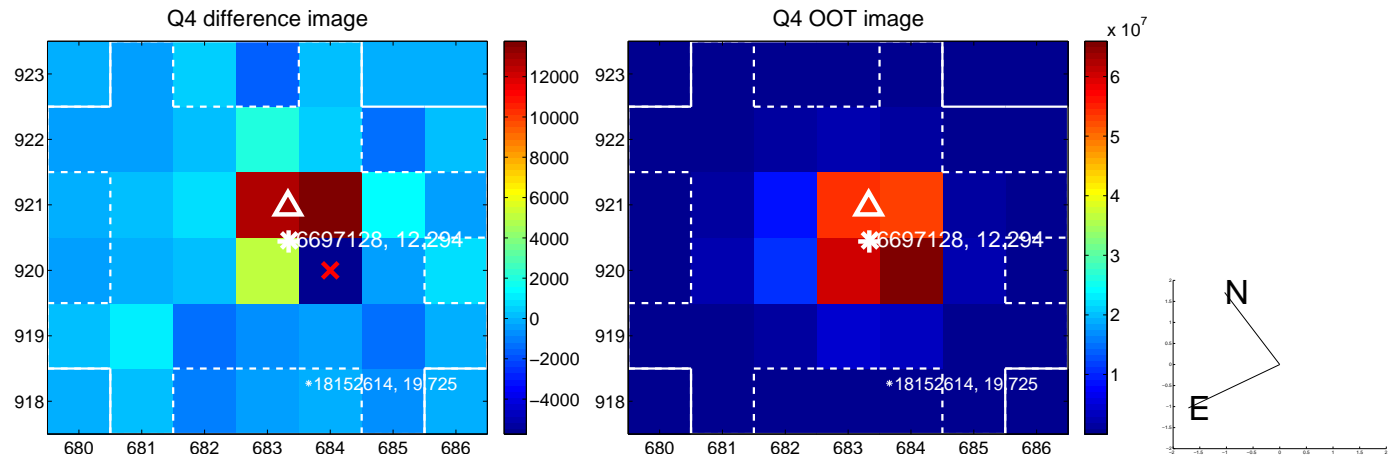
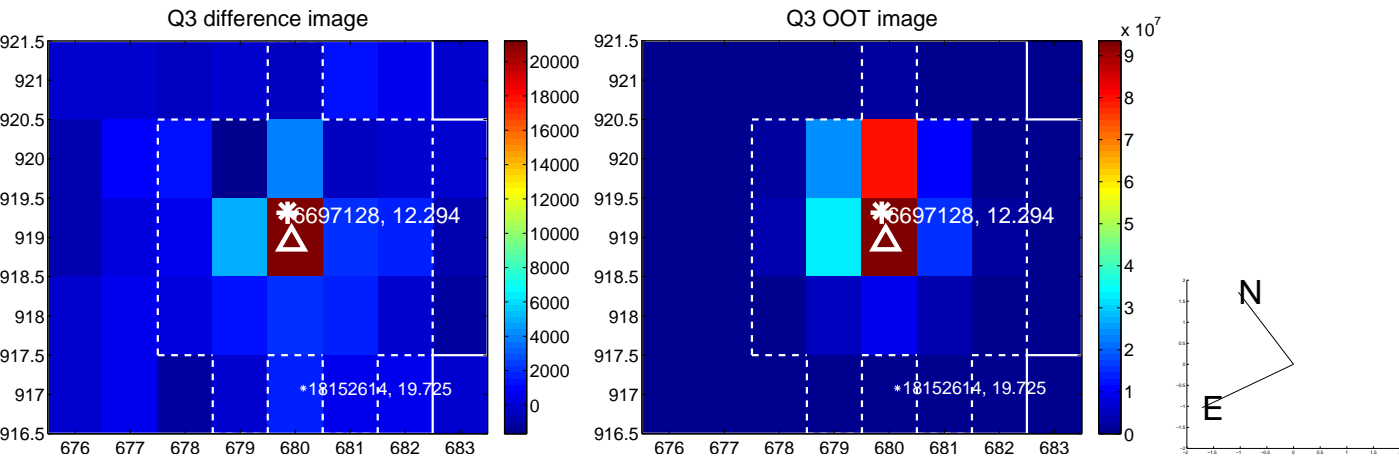
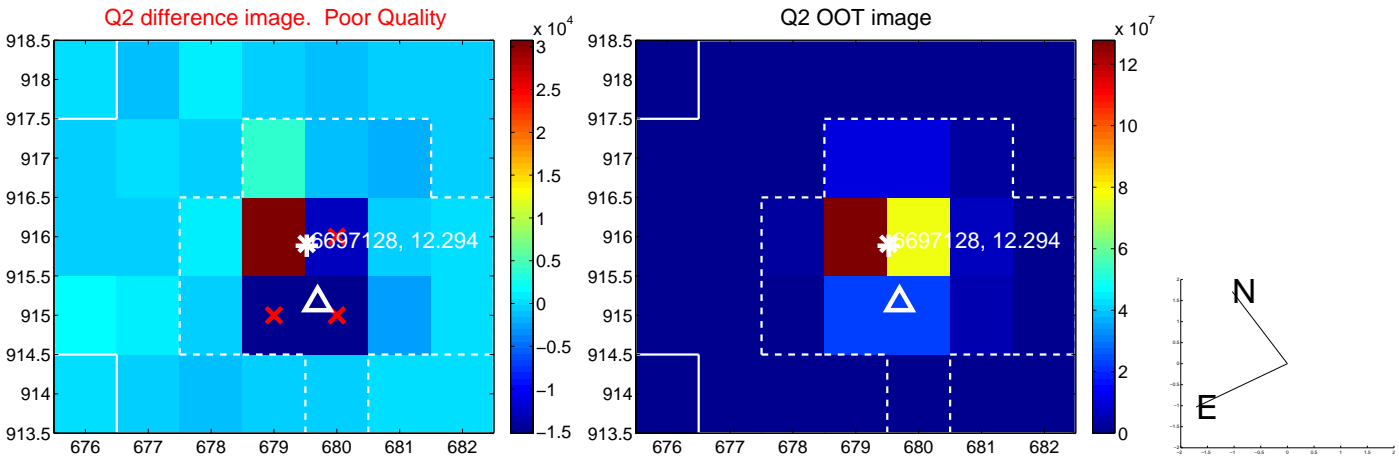
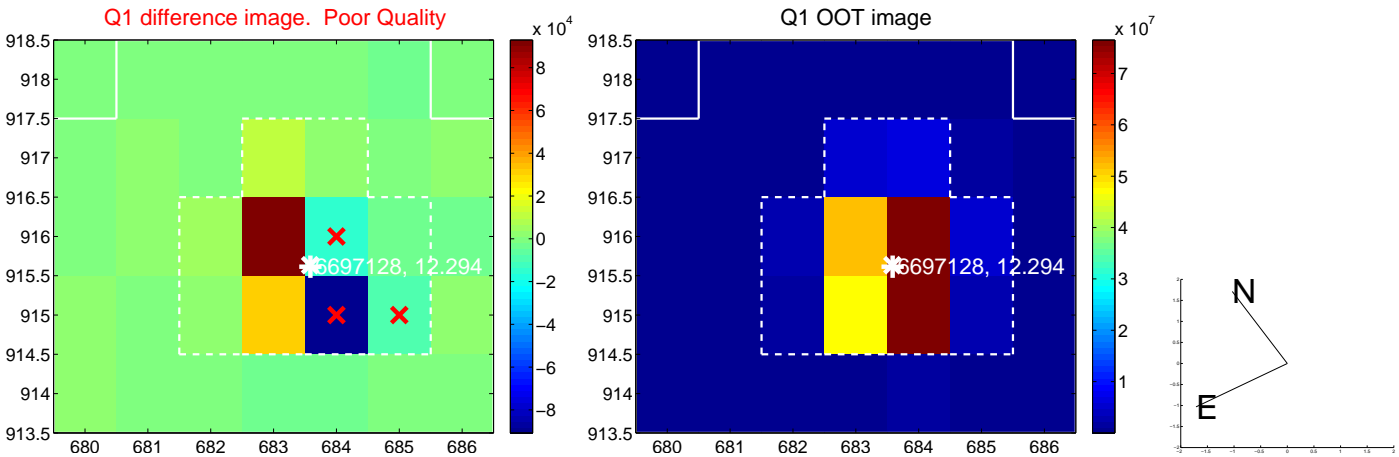
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.028 ± 0.628	1.64	0.654 ± 0.993	-0.793 ± 0.424
PRF-fit source offset from KIC position	1.112 ± 0.641	1.73	0.685 ± 1.047	-0.877 ± 0.438
photometric centroid source offset	1.13 ± 0.60	1.89	1.10 ± 0.60	-0.30 ± 0.57

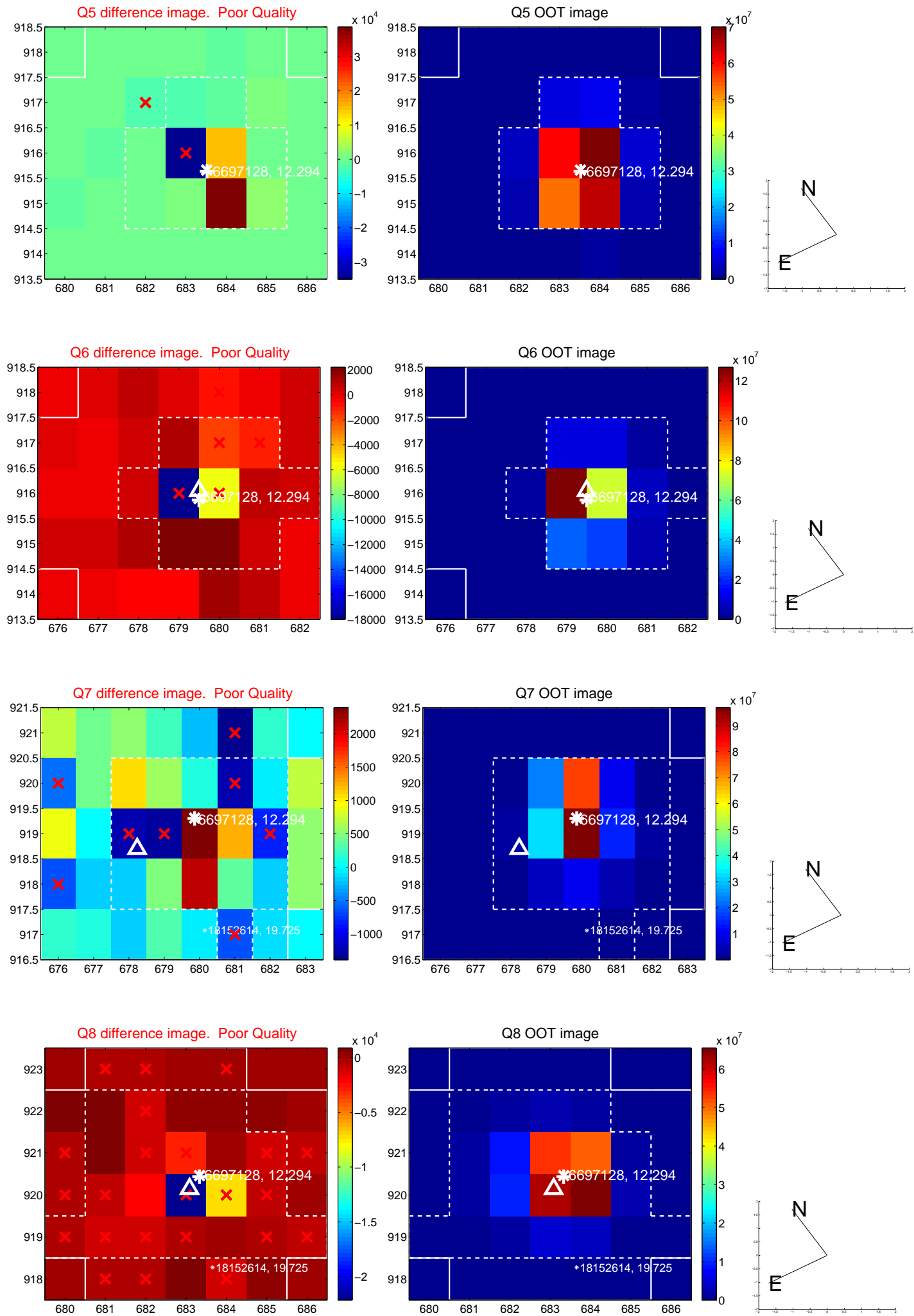


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

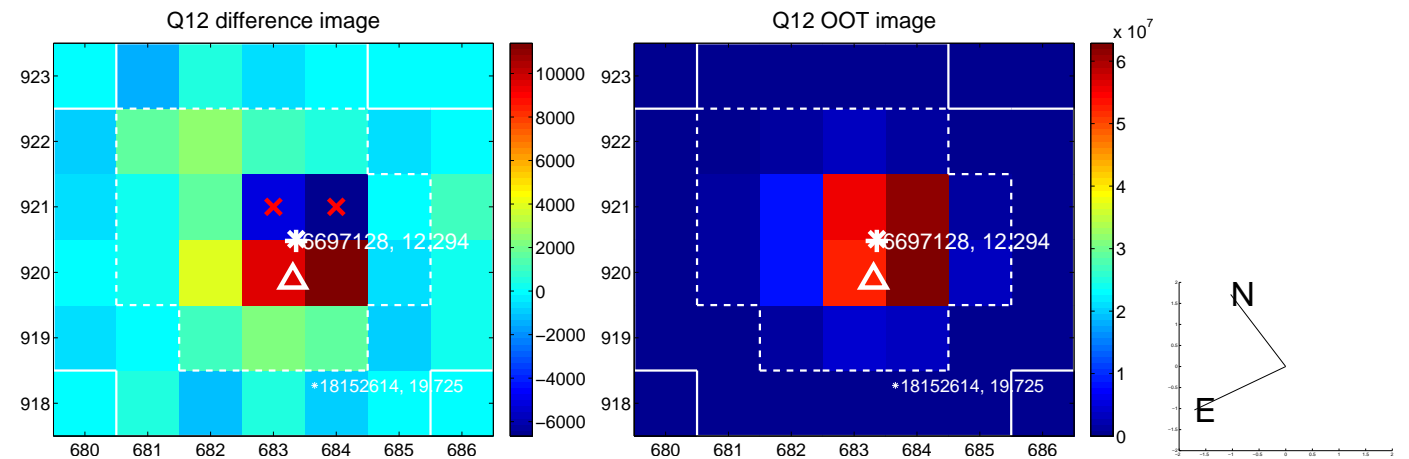
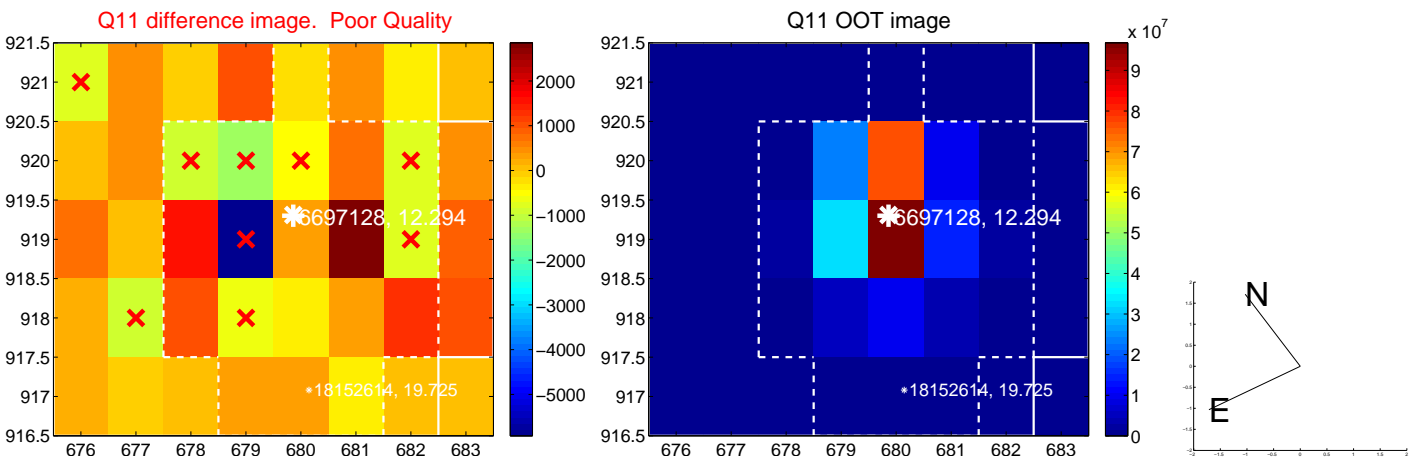
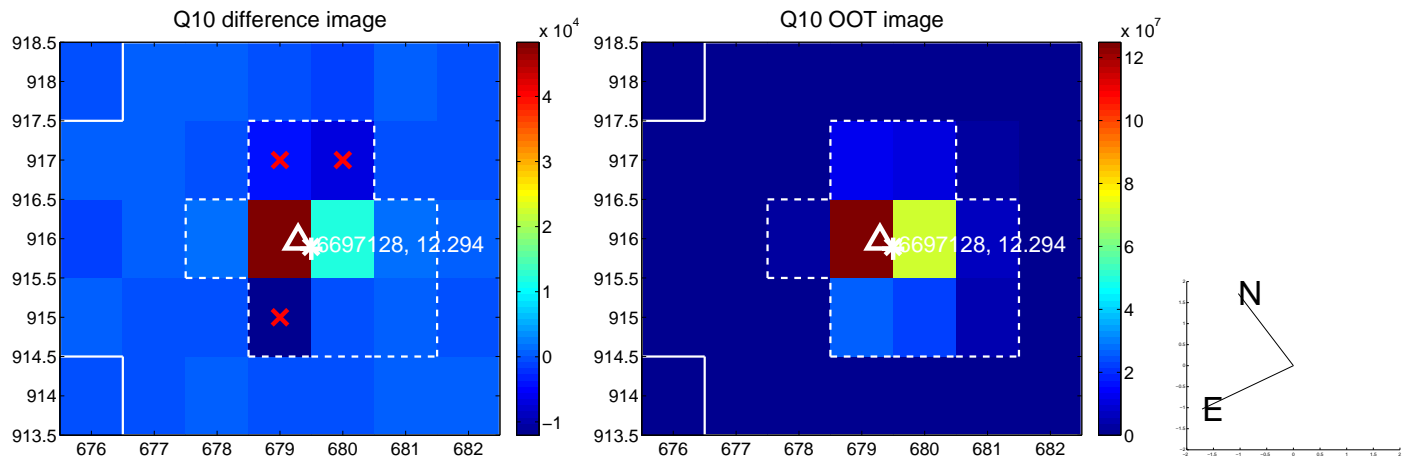
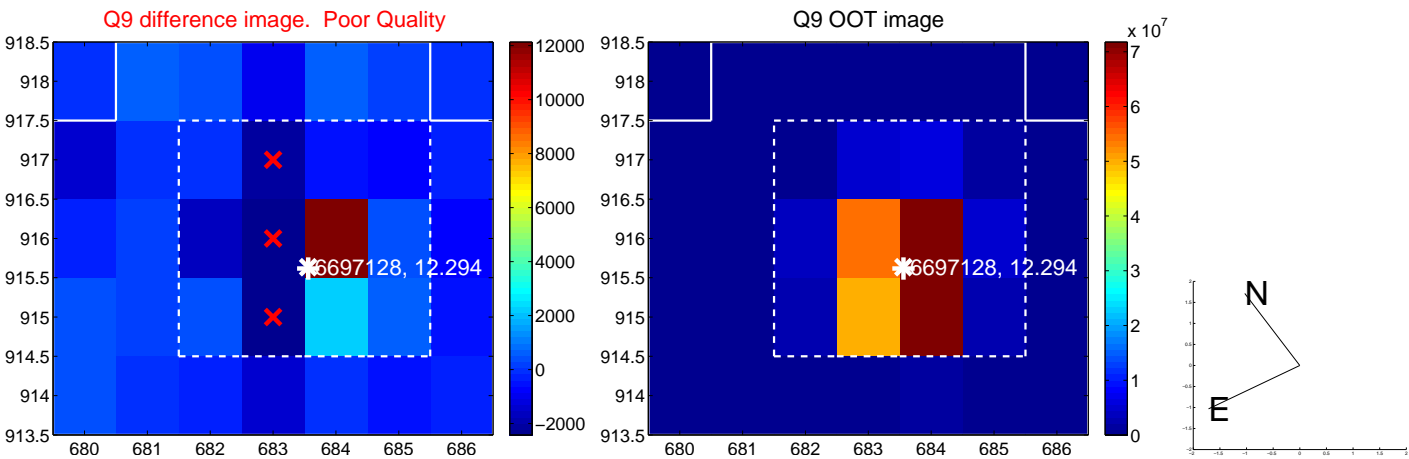
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



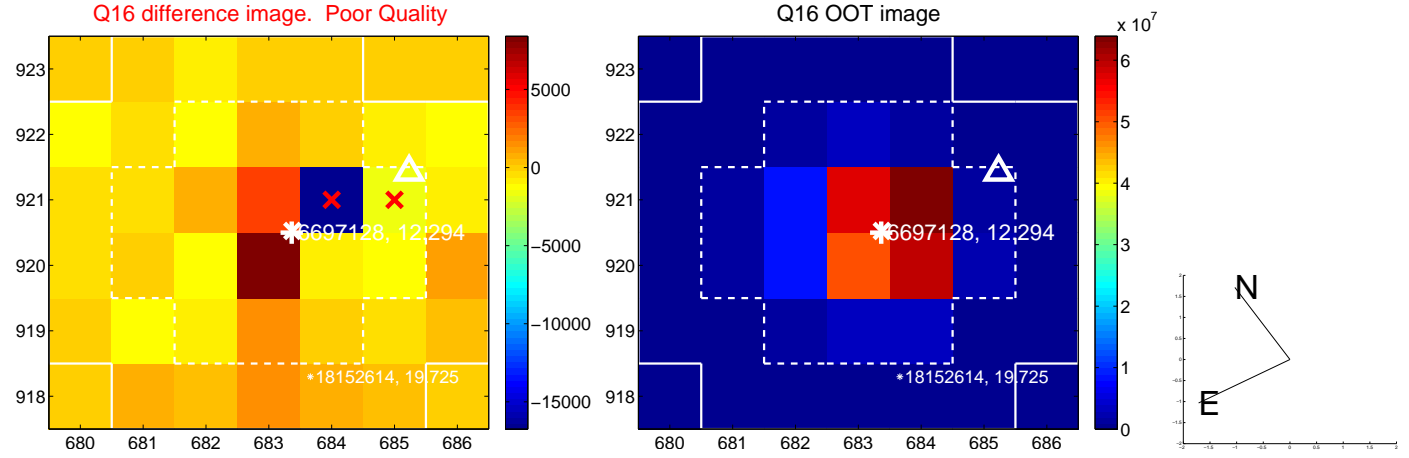
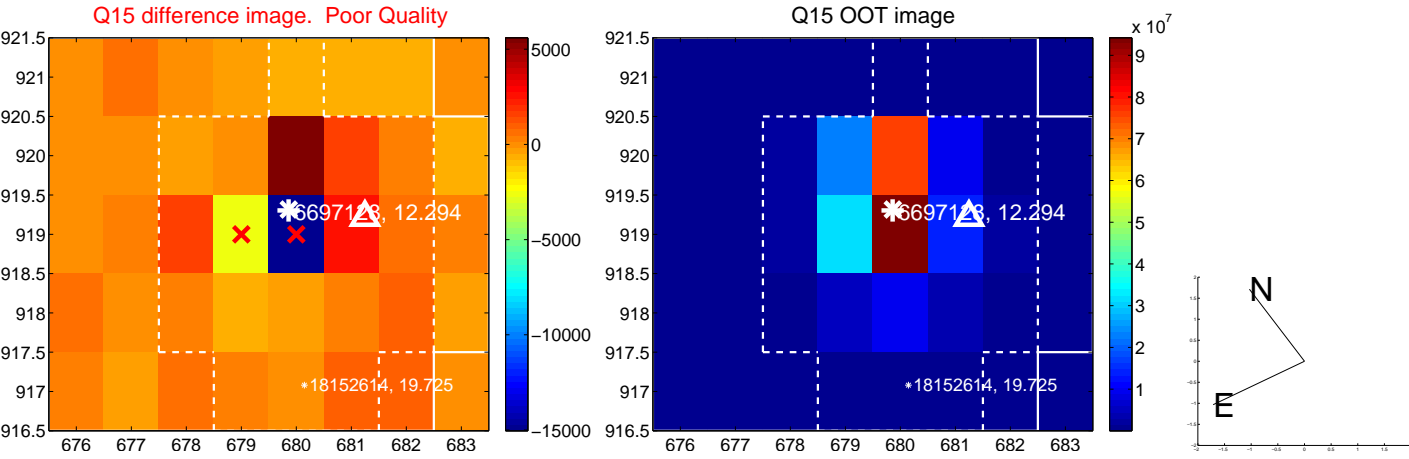
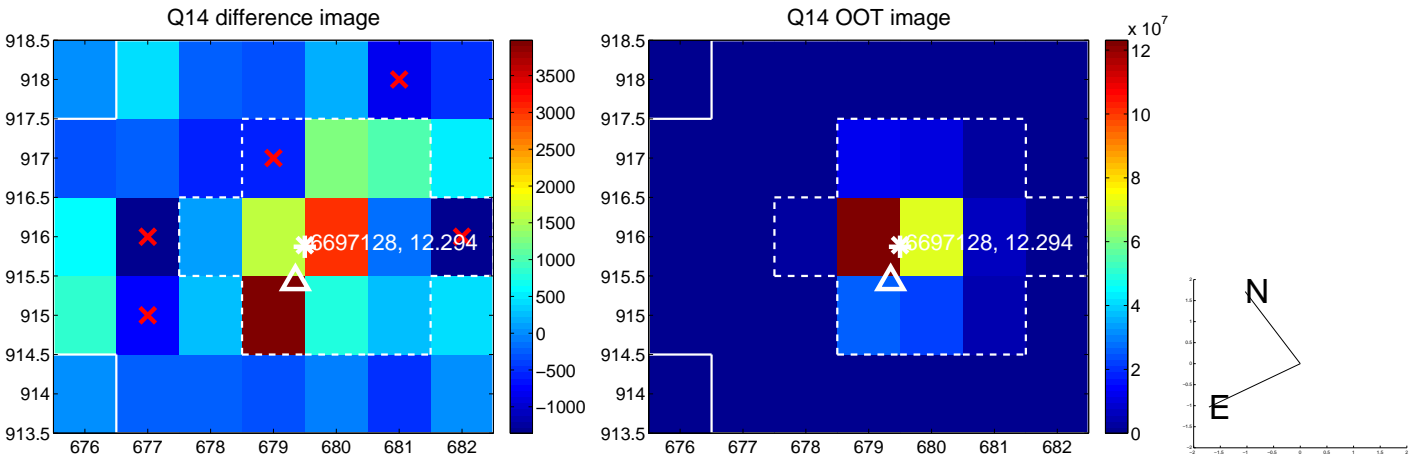
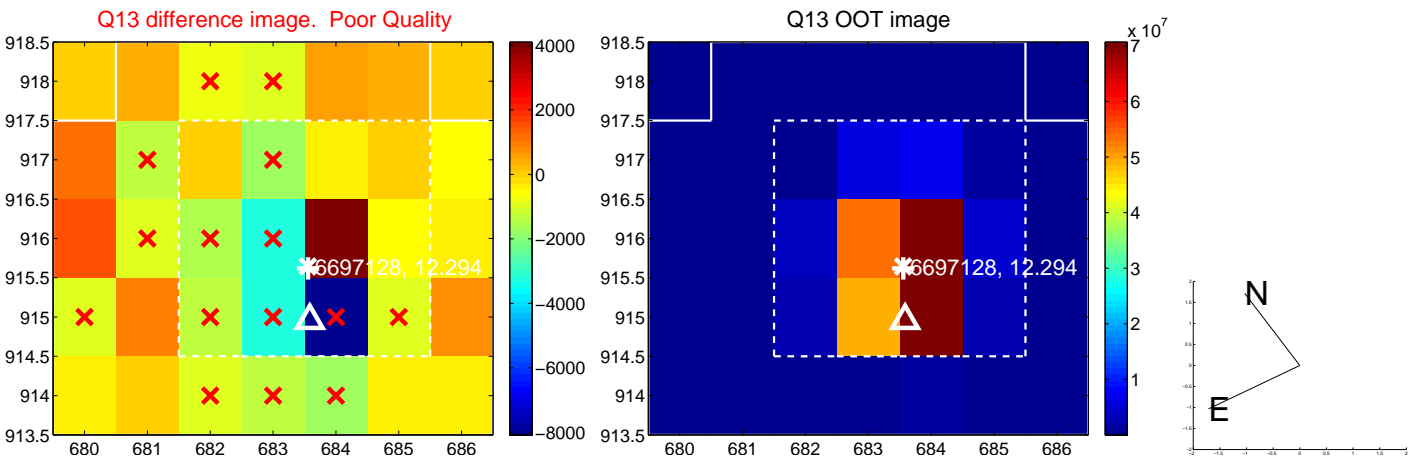
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



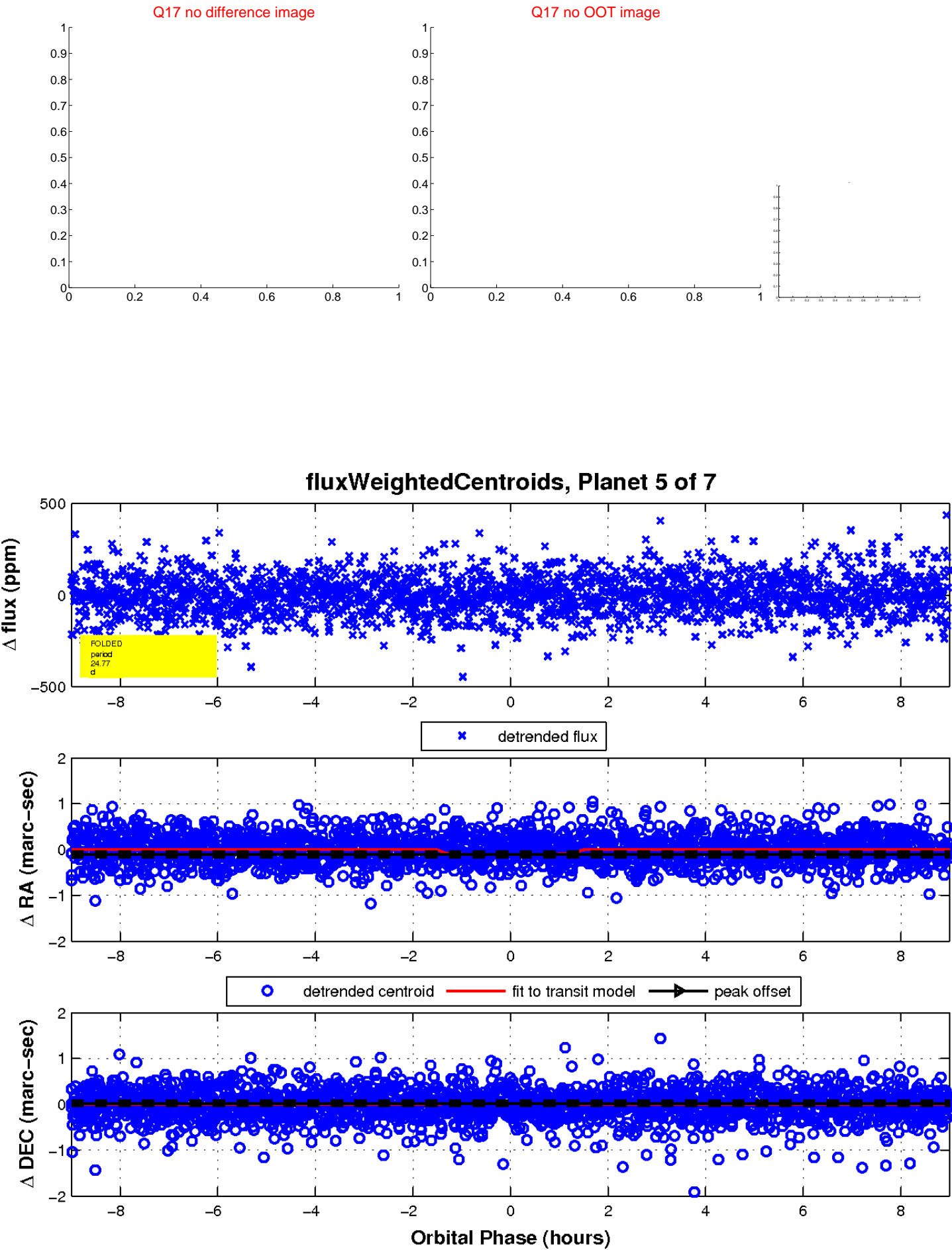
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

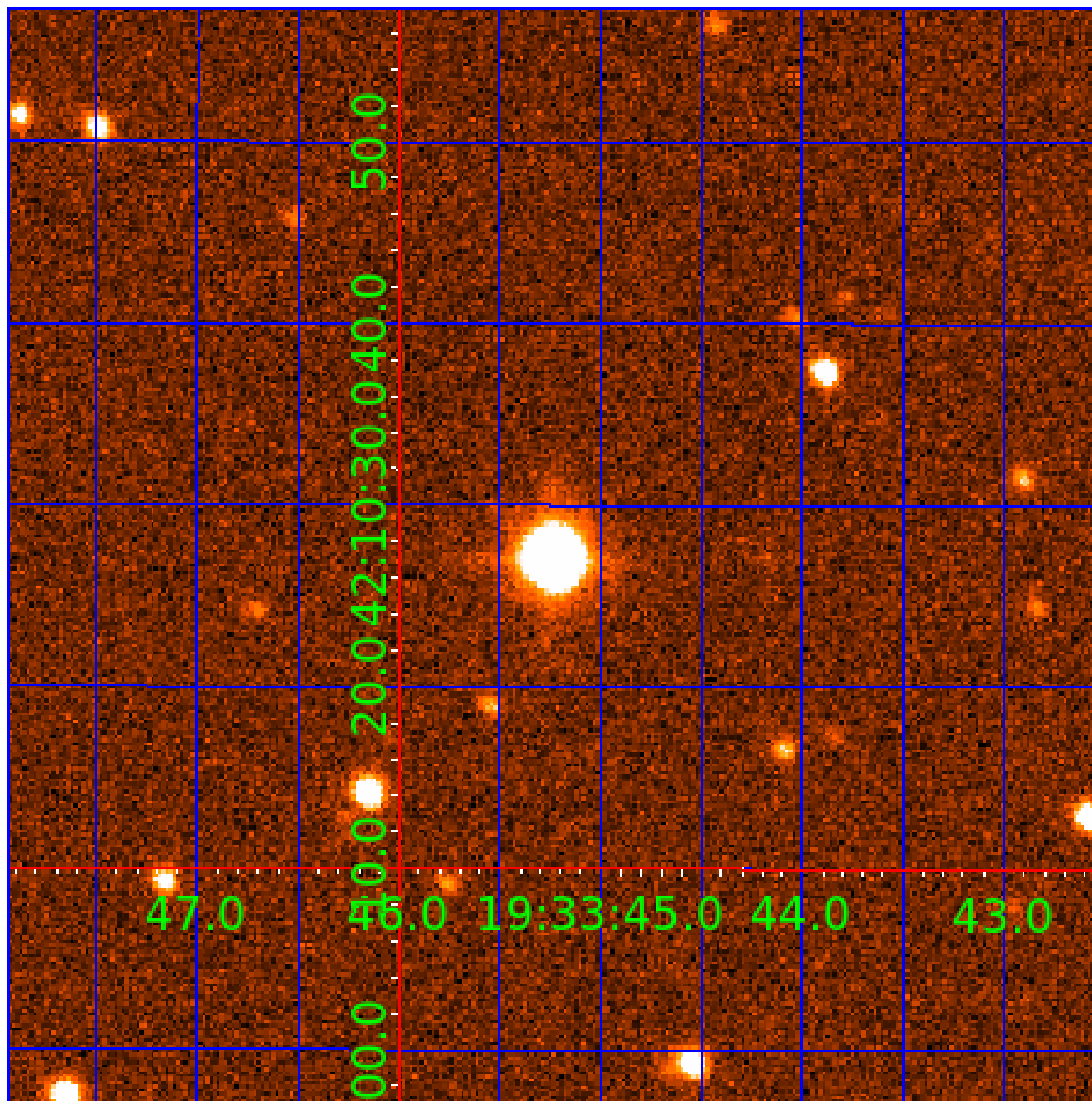


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

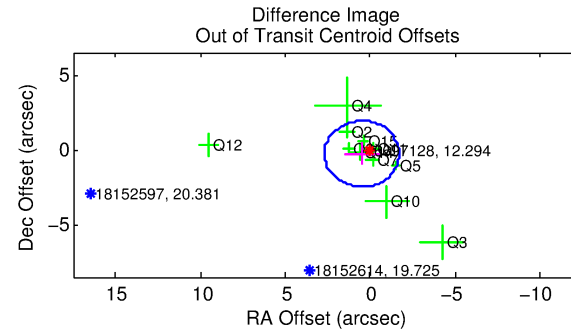
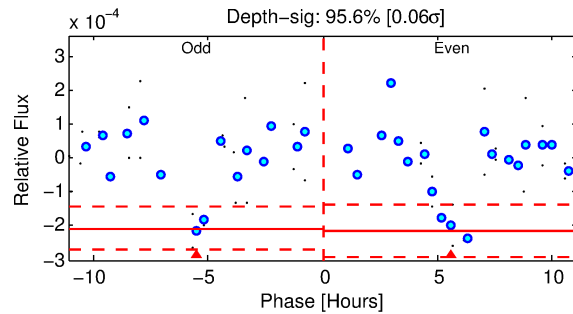
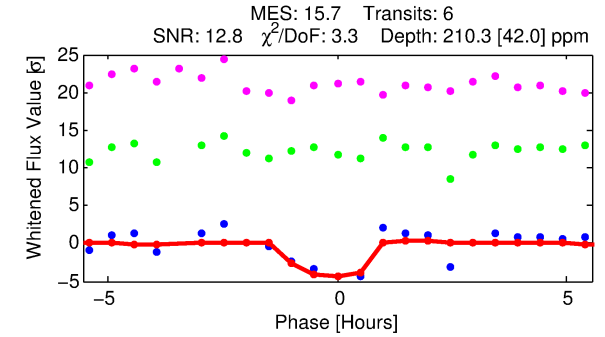
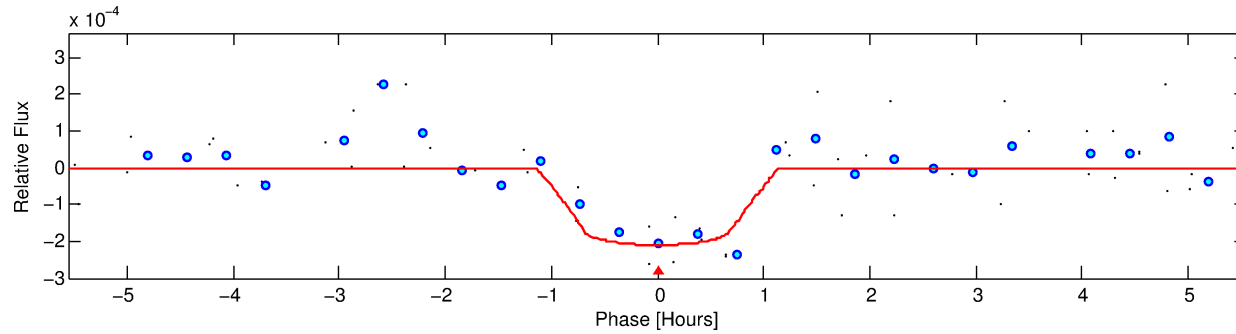
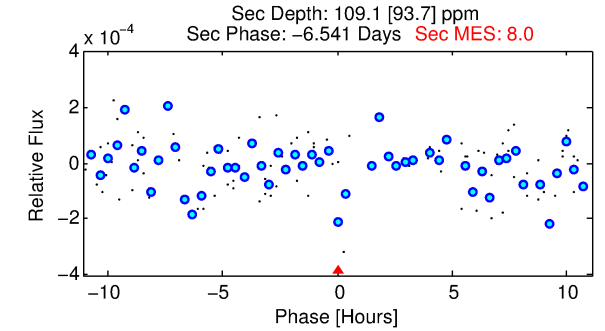
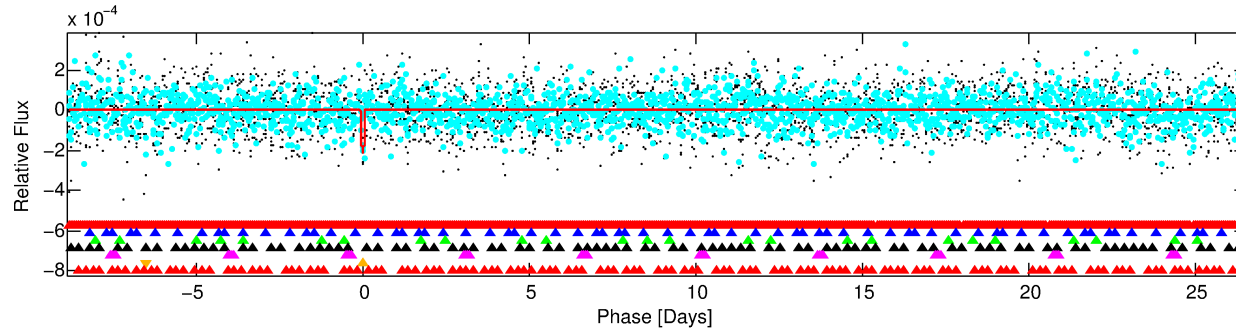
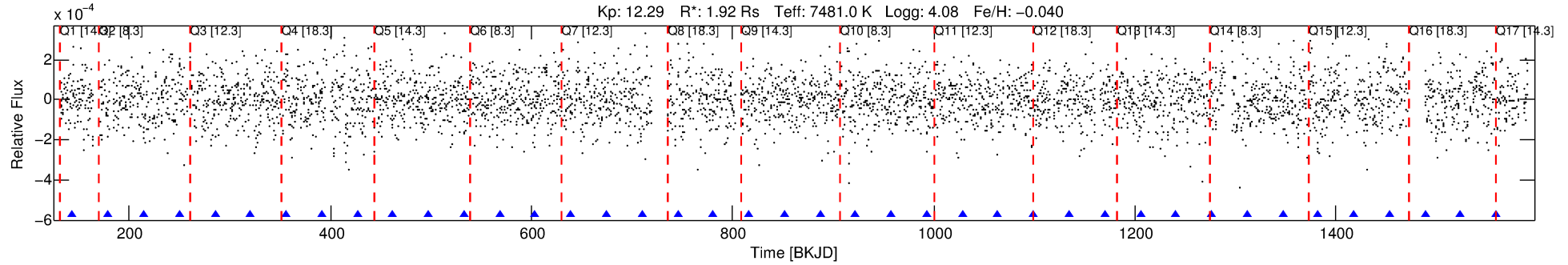
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-06

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 6 of 7 Period: 35.388 d



DV Fit Results:

Period = 35.38820 [0.00107] d
Epoch = 143.8042 [0.0185] BKJD
Rp/R* = 0.0135 [0.0481]
a/R* = 146.45 [3064.29]
b = 0.14 [144.86]
Seff = 167.61 [41.25]
Teq = 917 [56] K
Rp = 2.83 [10.09] Re
a = 0.2483 [0.0412] AU
Ag = 460.73 [3299.22] [0.14σ]
Teffp = 6572 [11759] K [0.48σ]

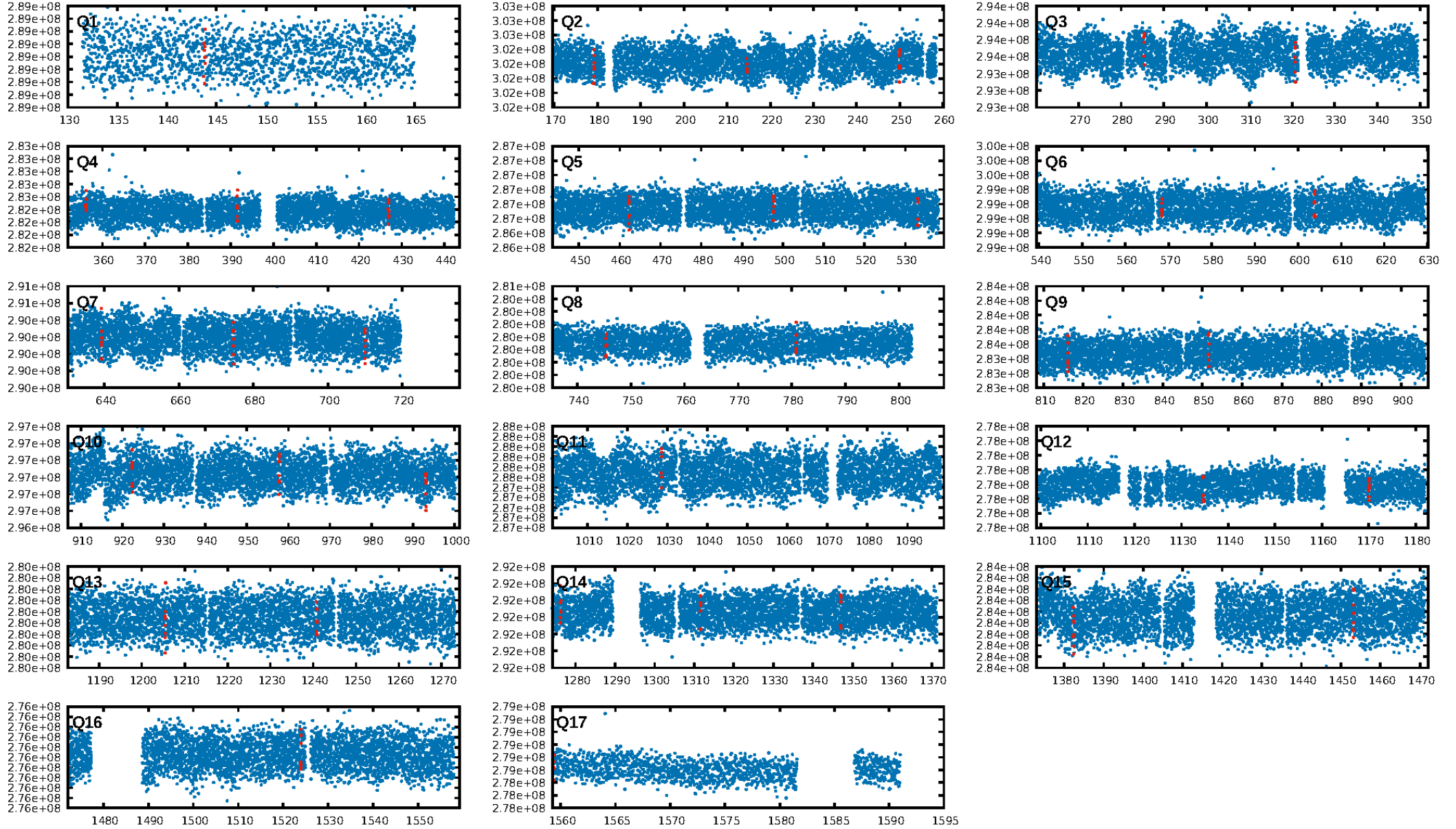
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [72.28σ]
LongPeriod-sig: 100.0% [241.31σ]
ModelChiSquare2-sig: 74.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.05e-11
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 1.235
Centroid-sig: 3.5%
Centroid-so: 0.486 arcsec [1.15σ]
OotOffset-rm: 0.559 arcsec [0.76σ]
KicOffset-rm: 0.603 arcsec [0.94σ]
OotOffset-st: 3/4/2/2 [11]
KicOffset-st: 3/4/2/2 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 0.00 [0/16]

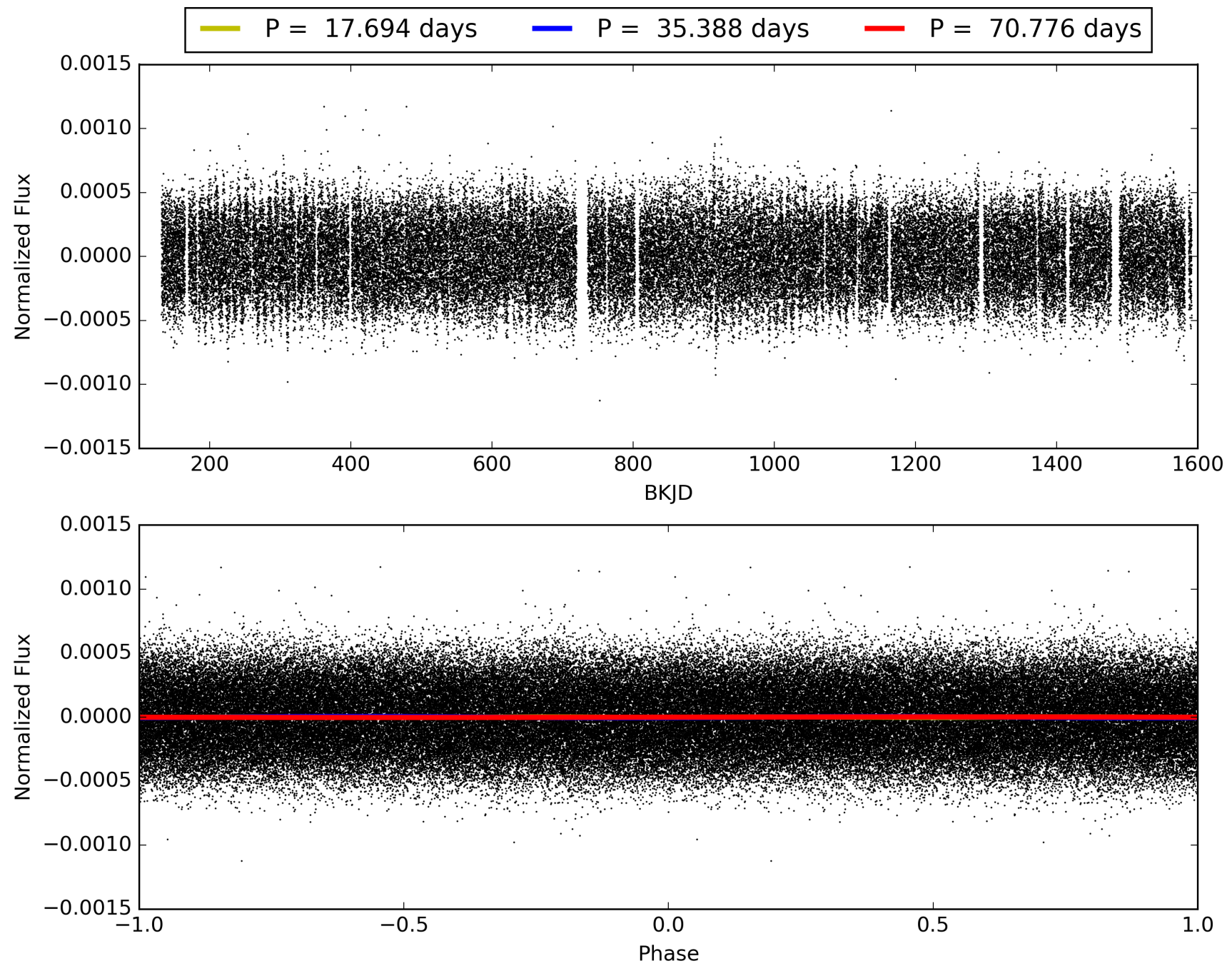
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:35:06 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-06, PDC Light Curves

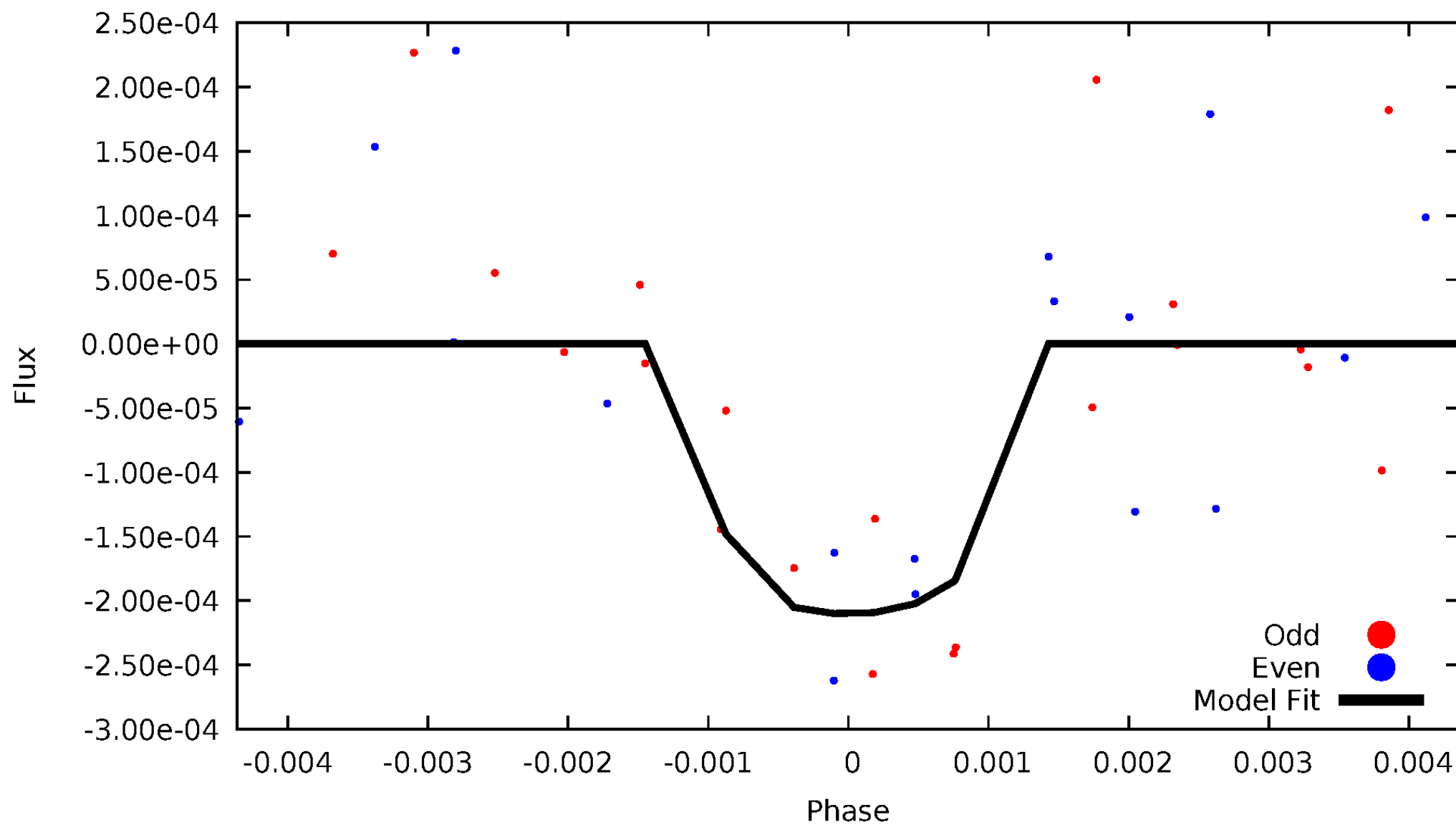


TCE 006697128-06



DV Odd/Even

TCE 006697128-06

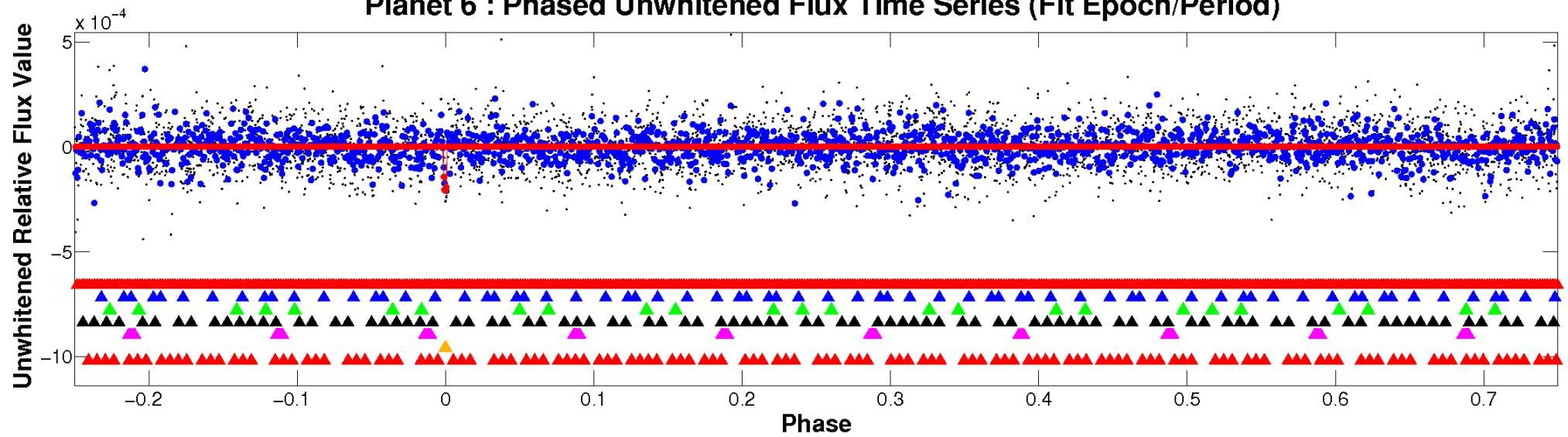


ALT Odd/Even

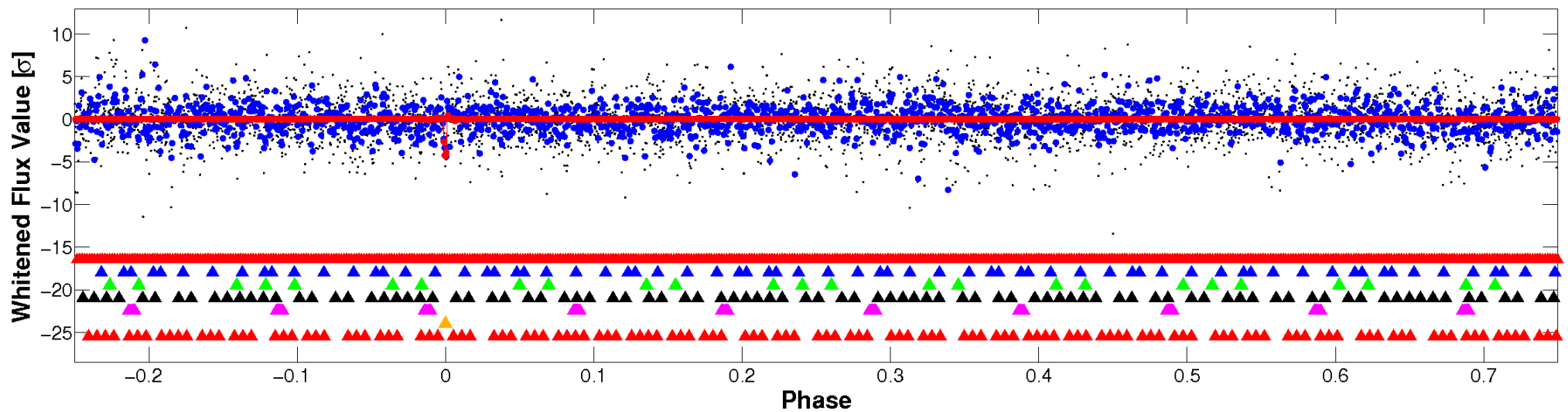
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

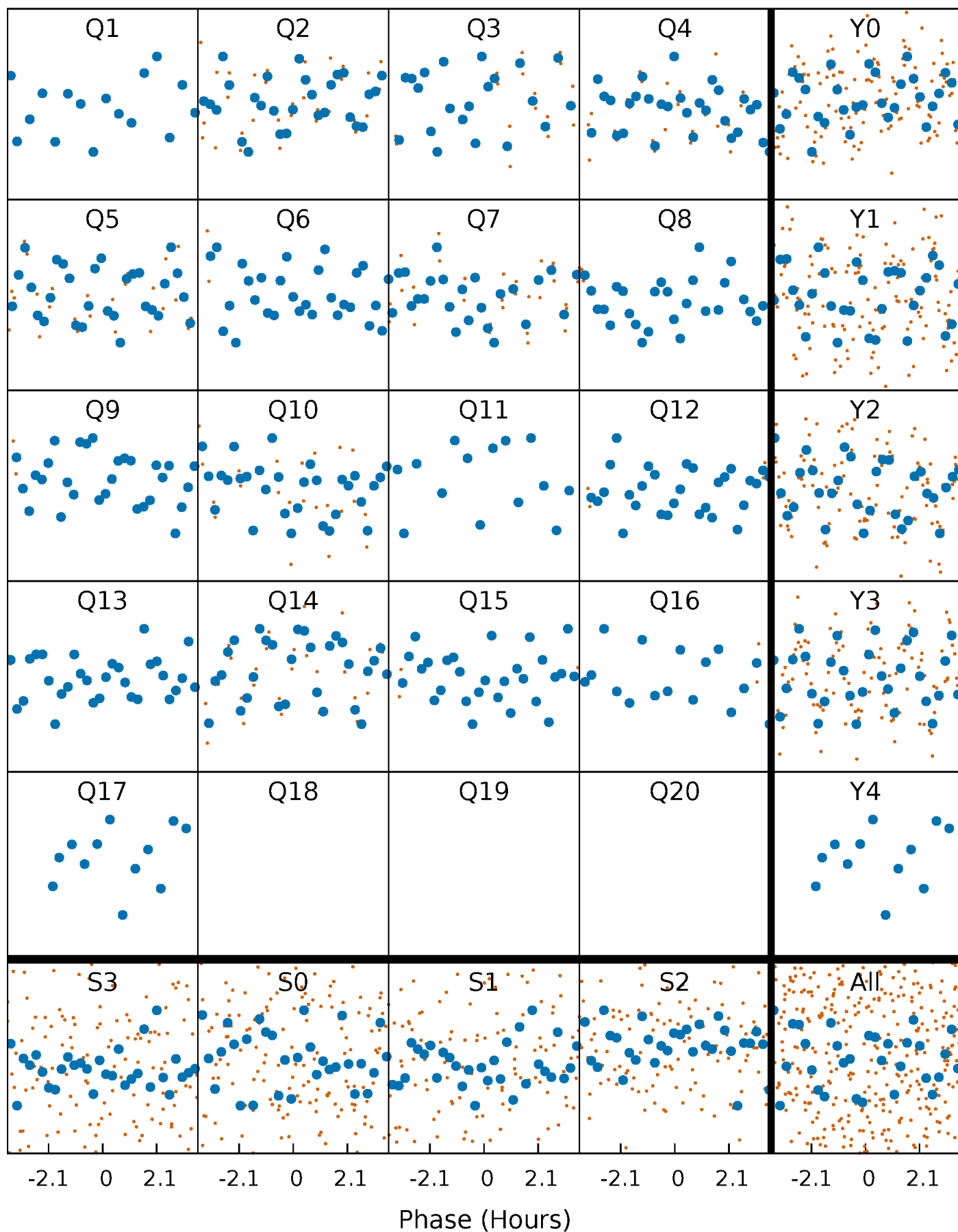


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



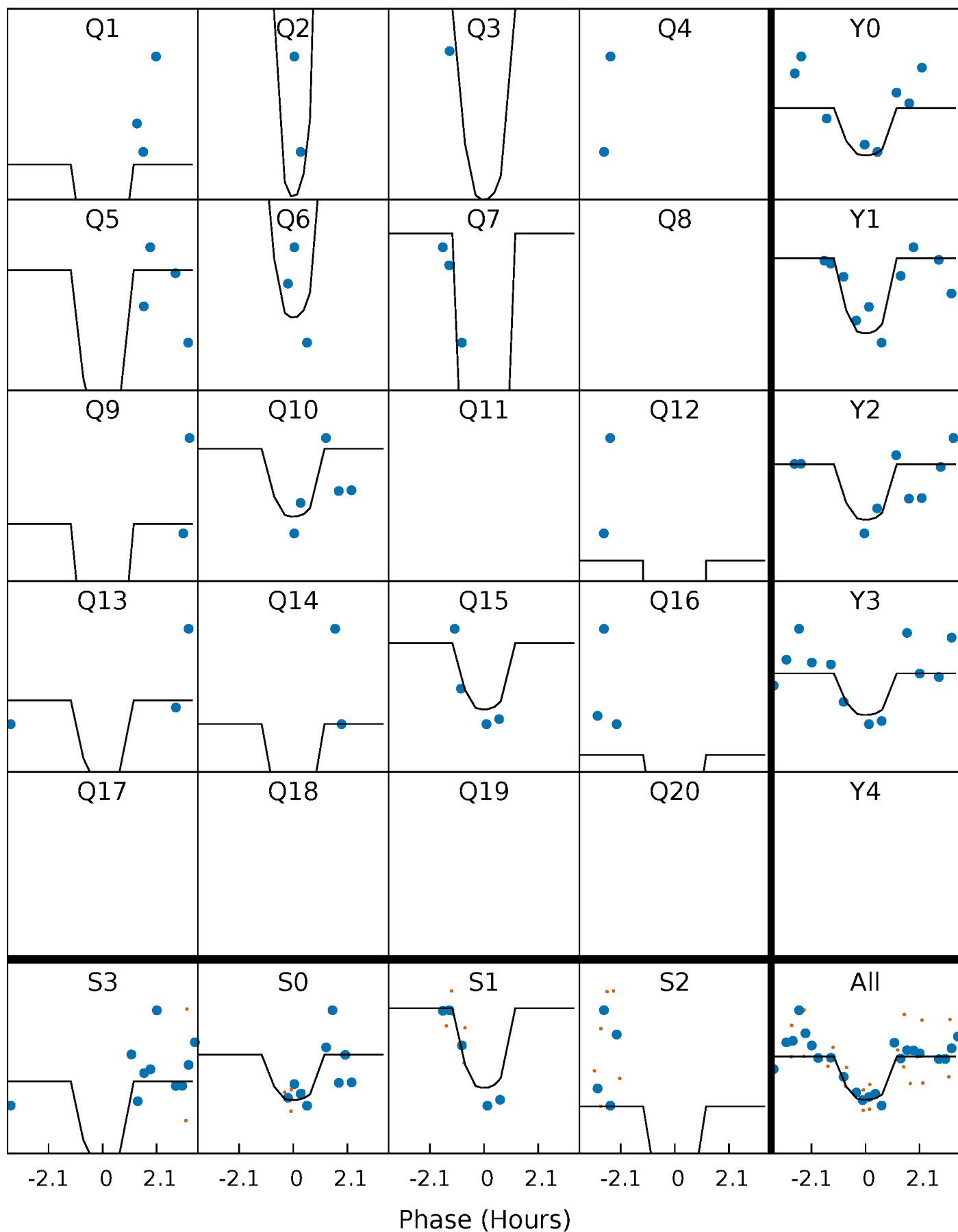
PDC Quarter-Phased Transit Curves

TCE 006697128-06 P= 35.388195 Days $T_0=143.804173$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006697128-06 P= 35.388195 Days $T_0=143.804173$ (BKJD)

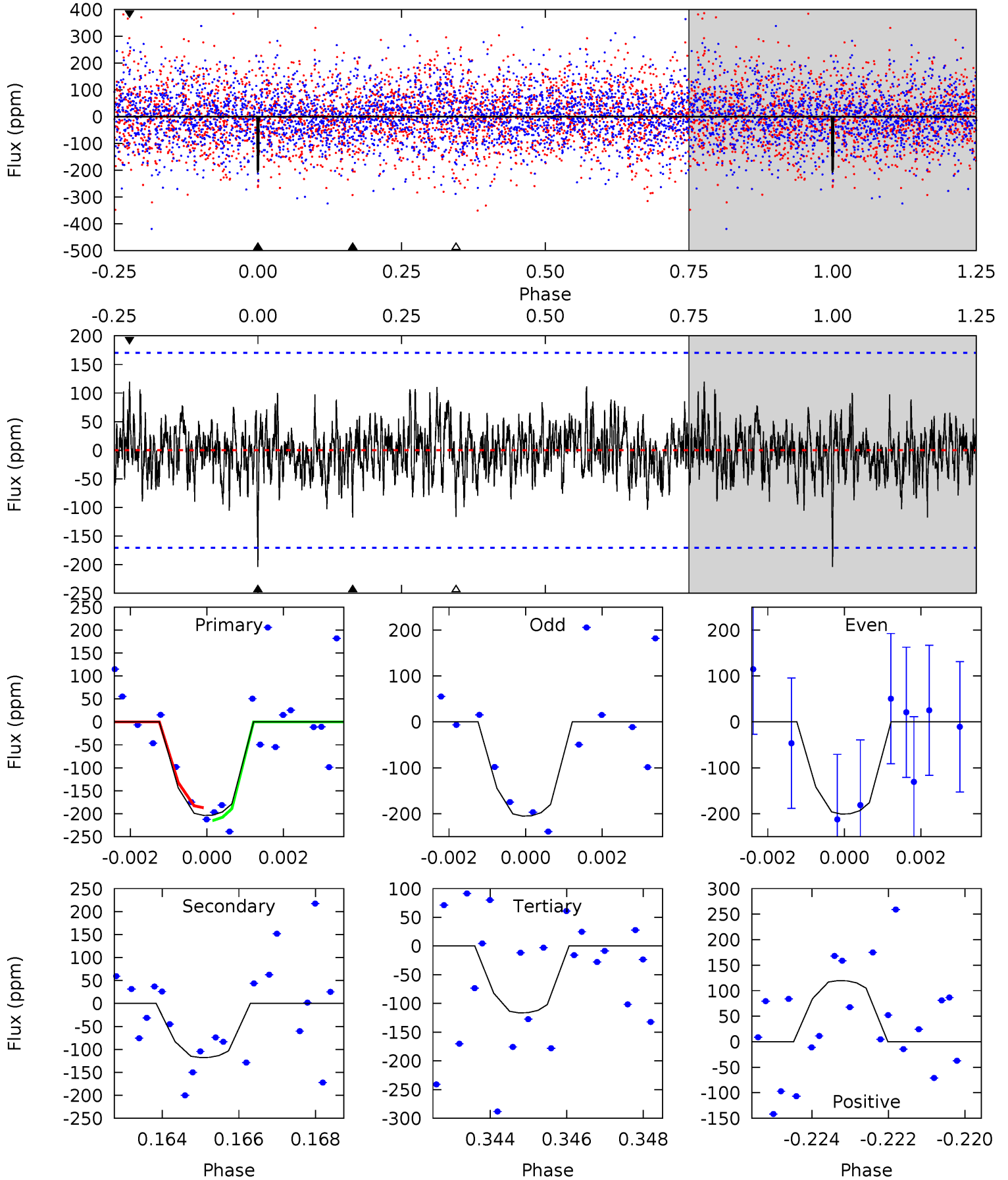


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

006697128-06, P = 35.388195 Days, E = 108.415978 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.33	3.66	3.62	3.72	5.30	3.04	1.12	2.71	2.61	0.04	-0.06	0.07	1.05	0.37	0.43



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 006697128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-118 ± 32	$8.43^{+8.44}_{-5.93}$	1284^{+64}_{-50}	4100^{+2850}_{-861}	55^{+562}_{-42}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

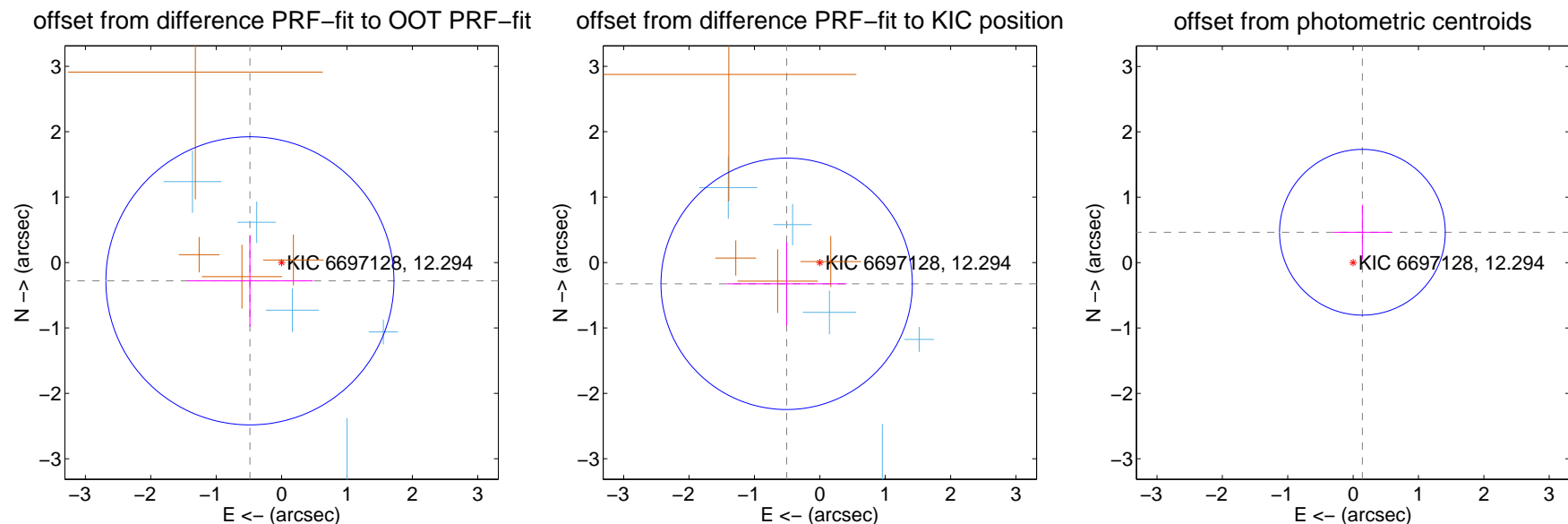
DV Centroid Data

Supplemental centroid analysis for 006697128-06. Kepler magnitude: 12.29. Transit SNR 12.84

There are 5 quarters with good PRF difference image offsets

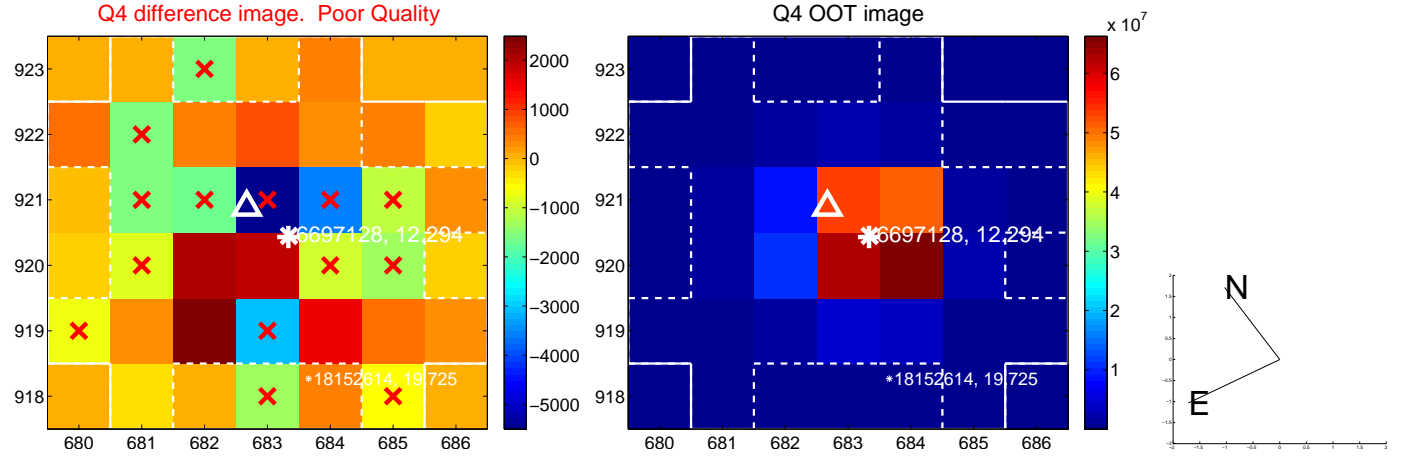
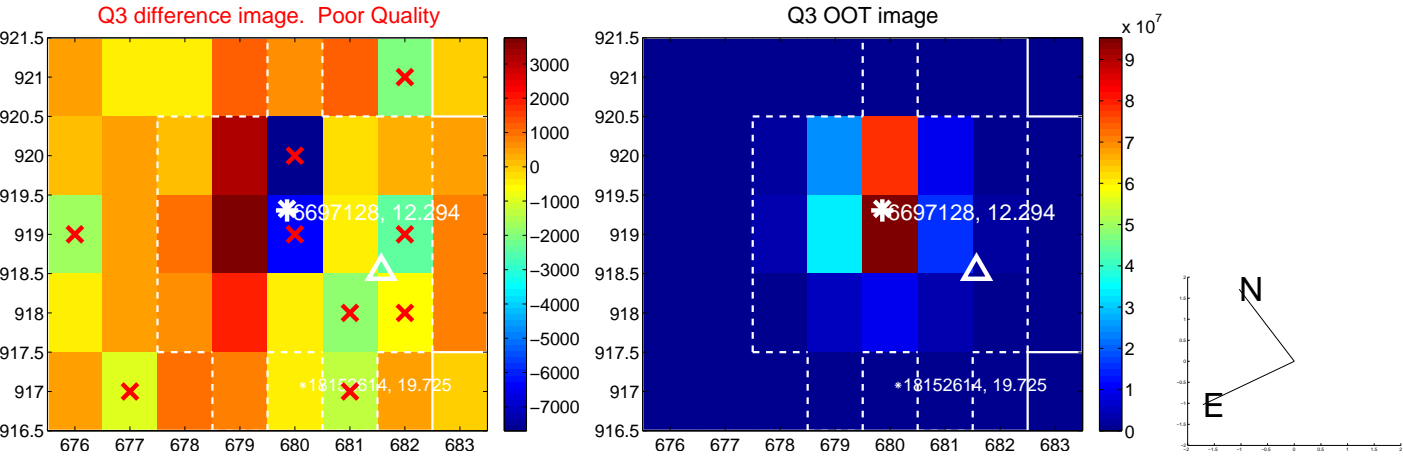
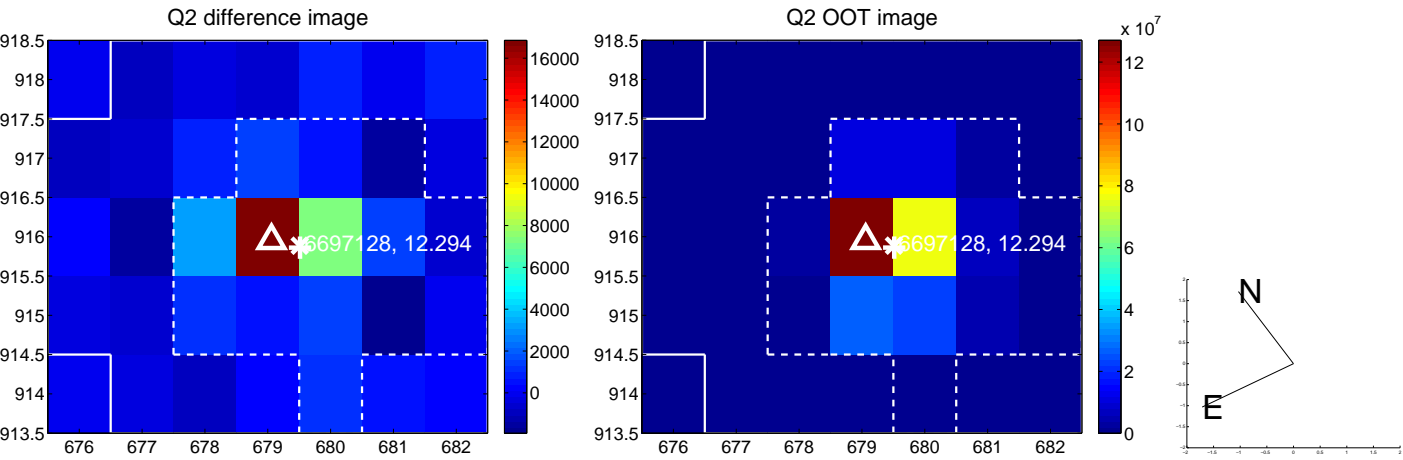
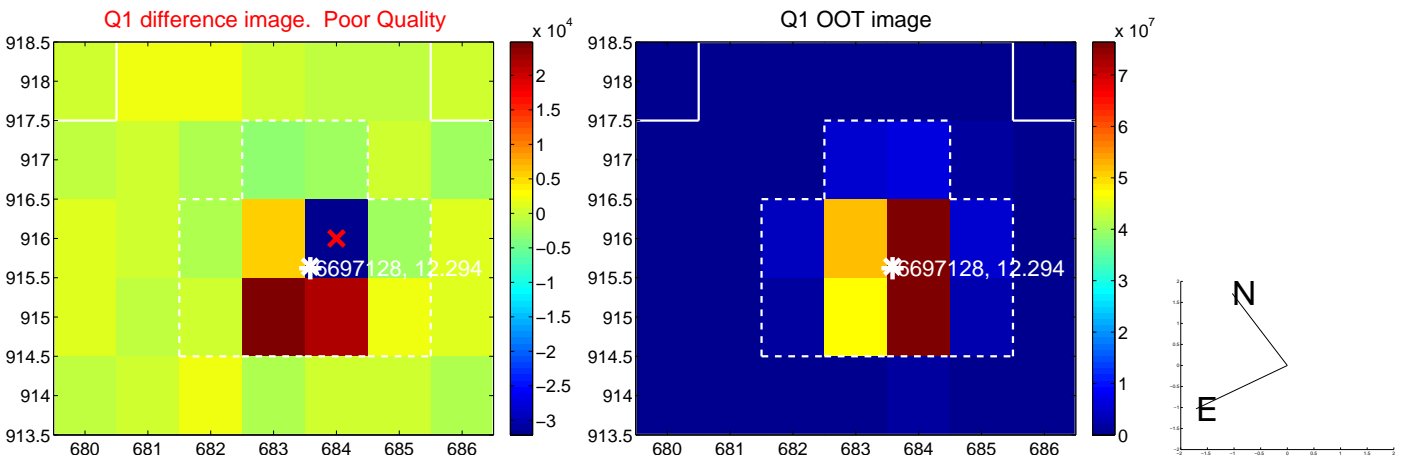
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.559 ± 0.734	0.76	0.484 ± 0.962	-0.280 ± 0.699
PRF-fit source offset from KIC position	0.603 ± 0.641	0.94	0.507 ± 0.917	-0.325 ± 0.640
photometric centroid source offset	0.49 ± 0.42	1.15	-0.14 ± 0.44	0.46 ± 0.42

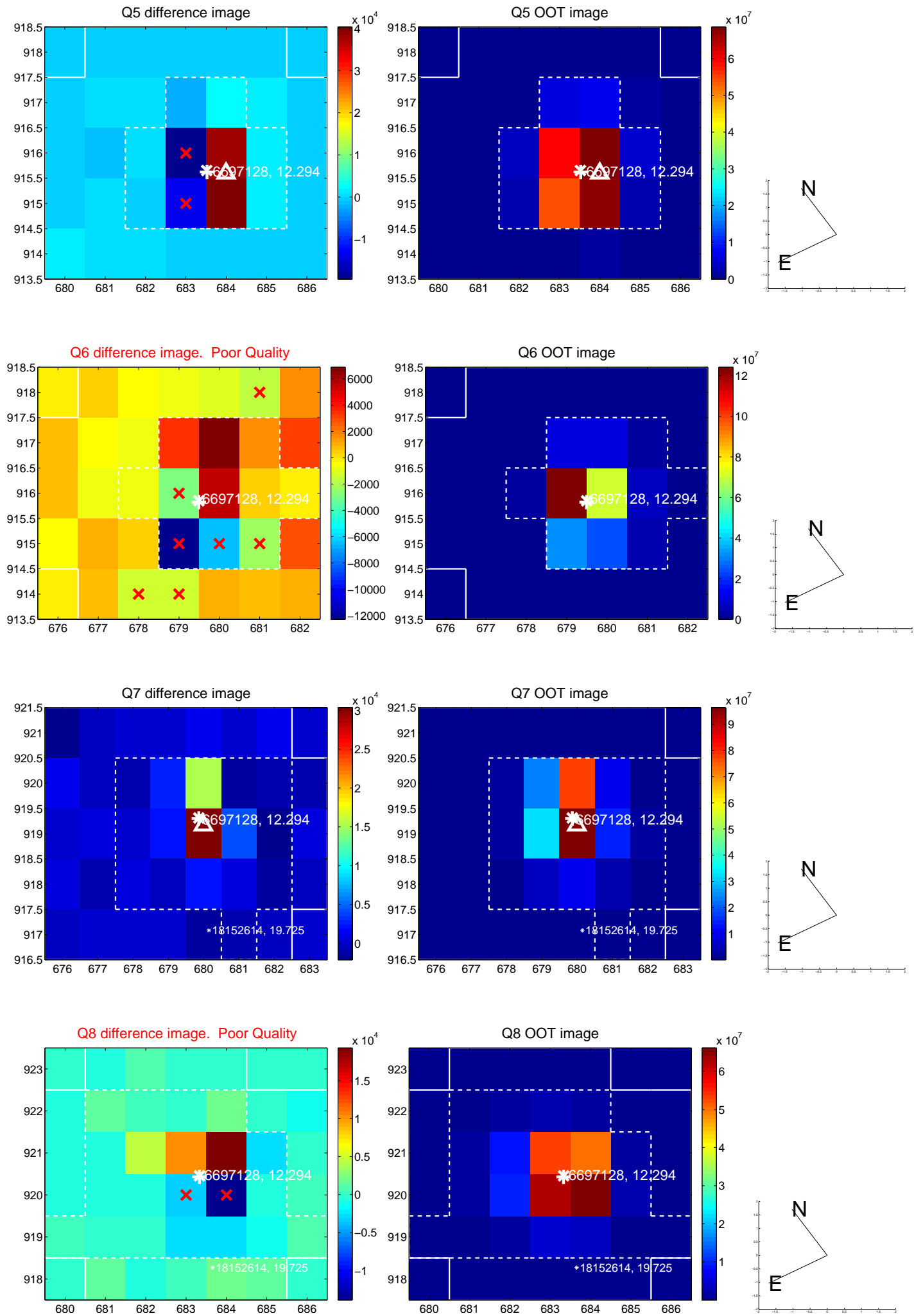


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

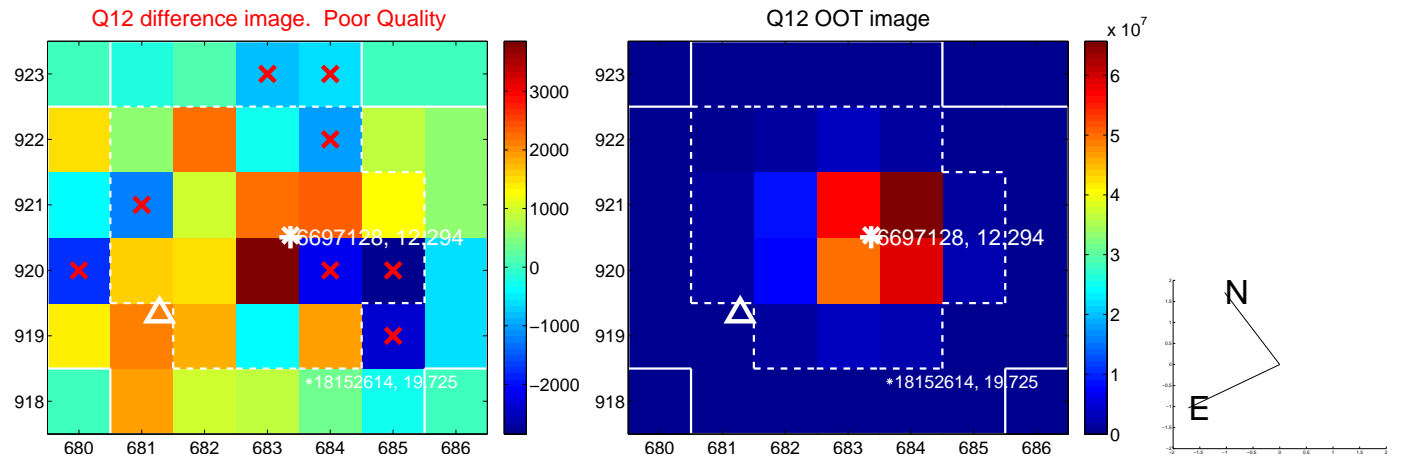
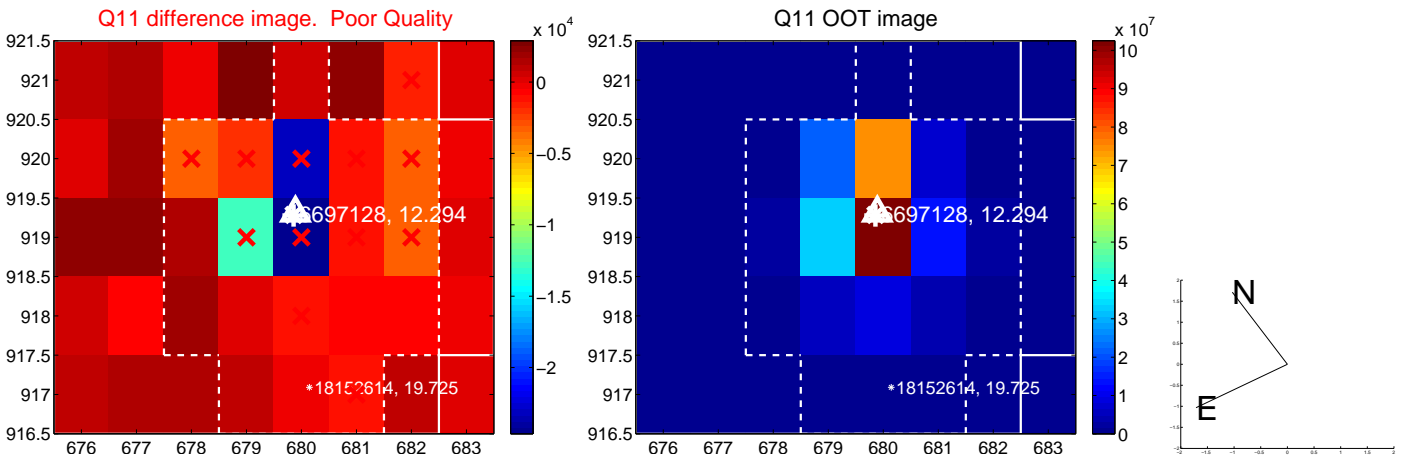
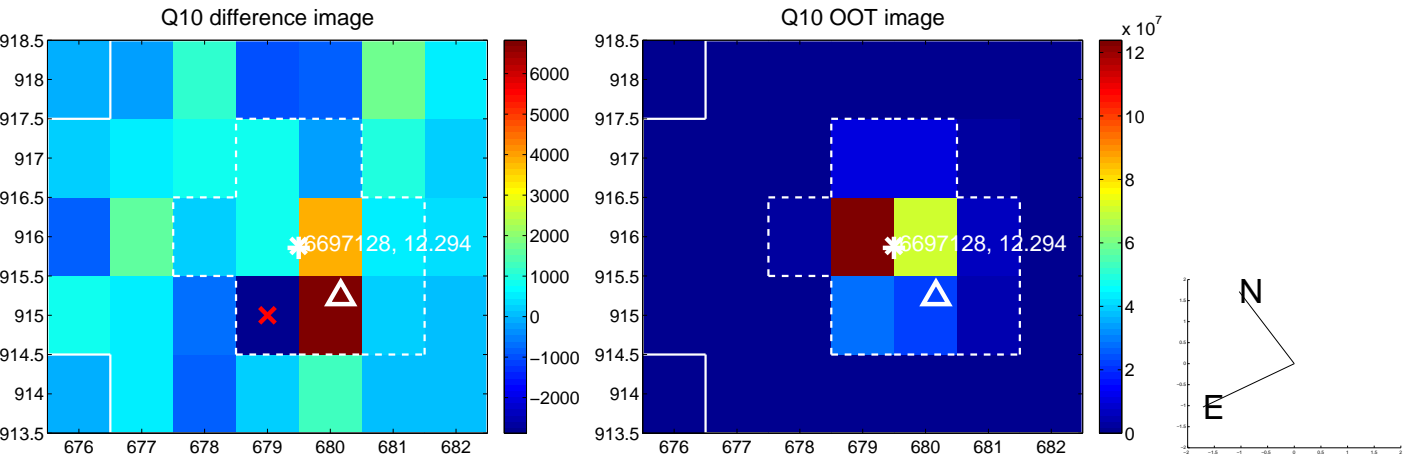
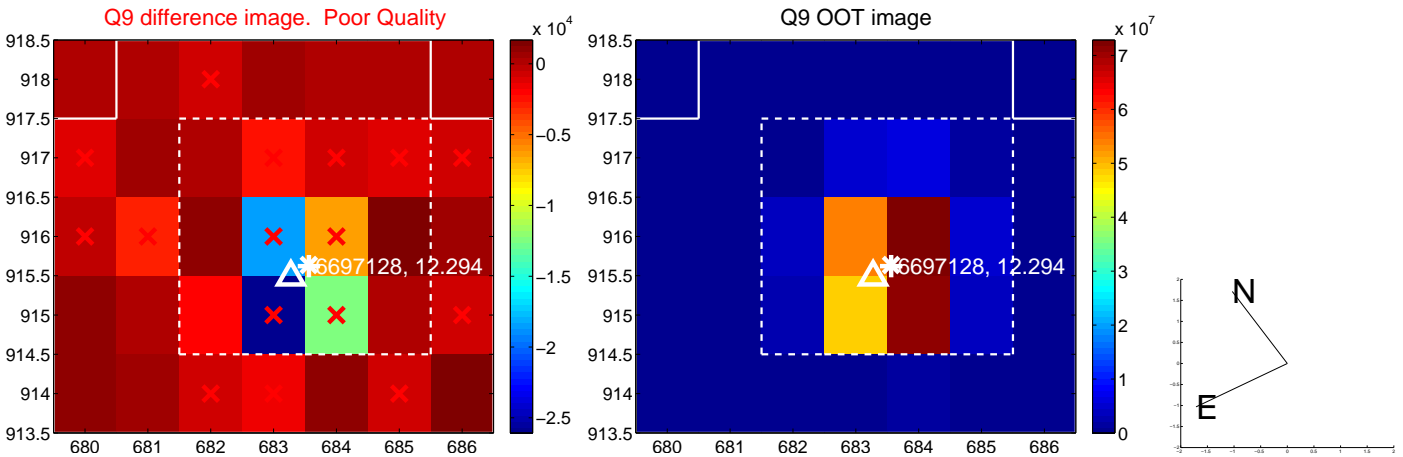
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



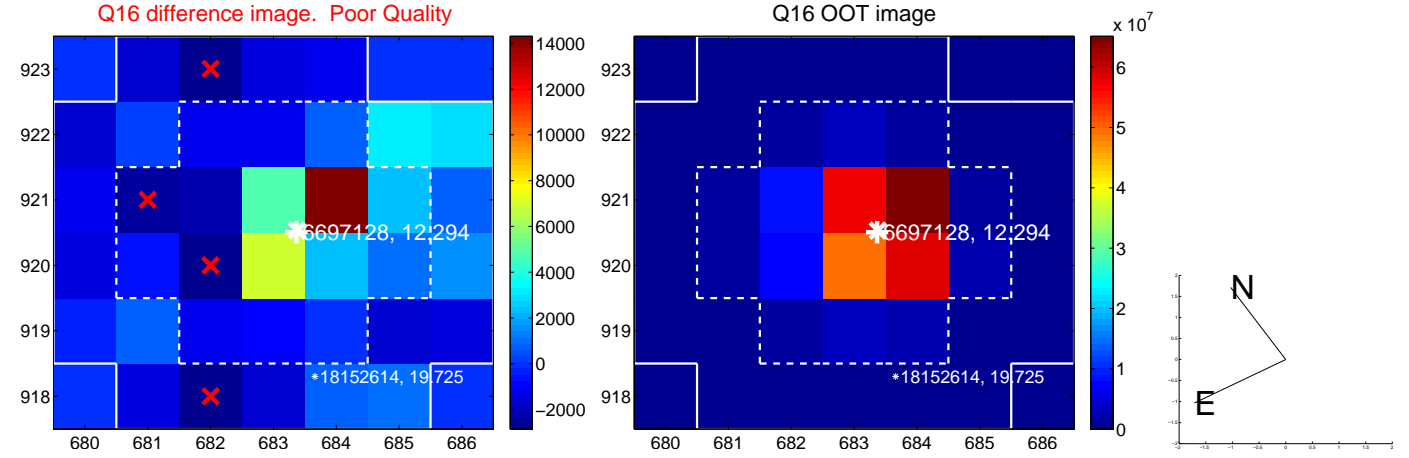
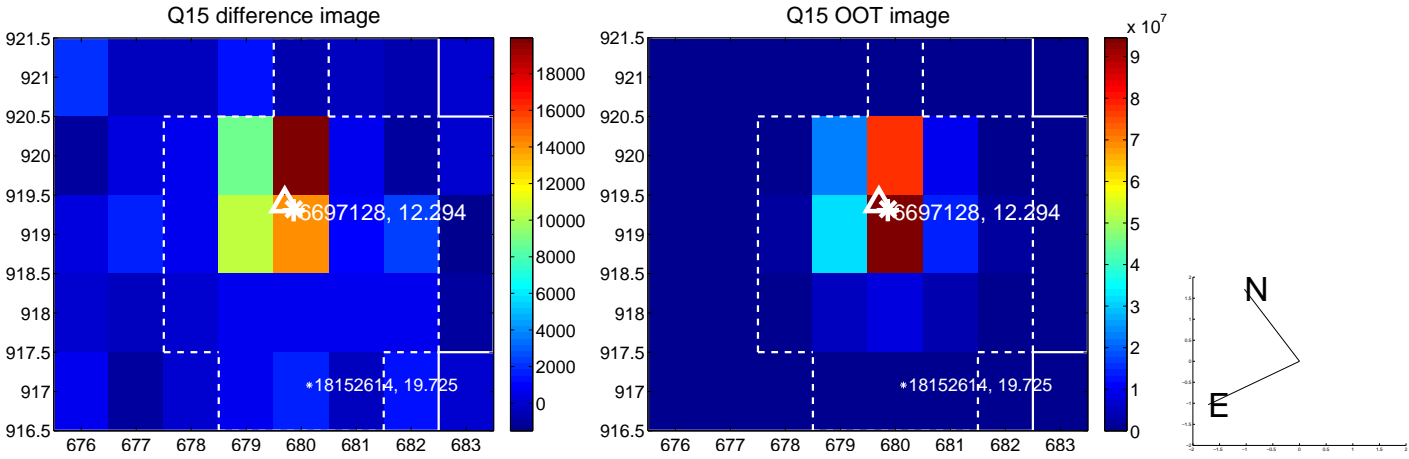
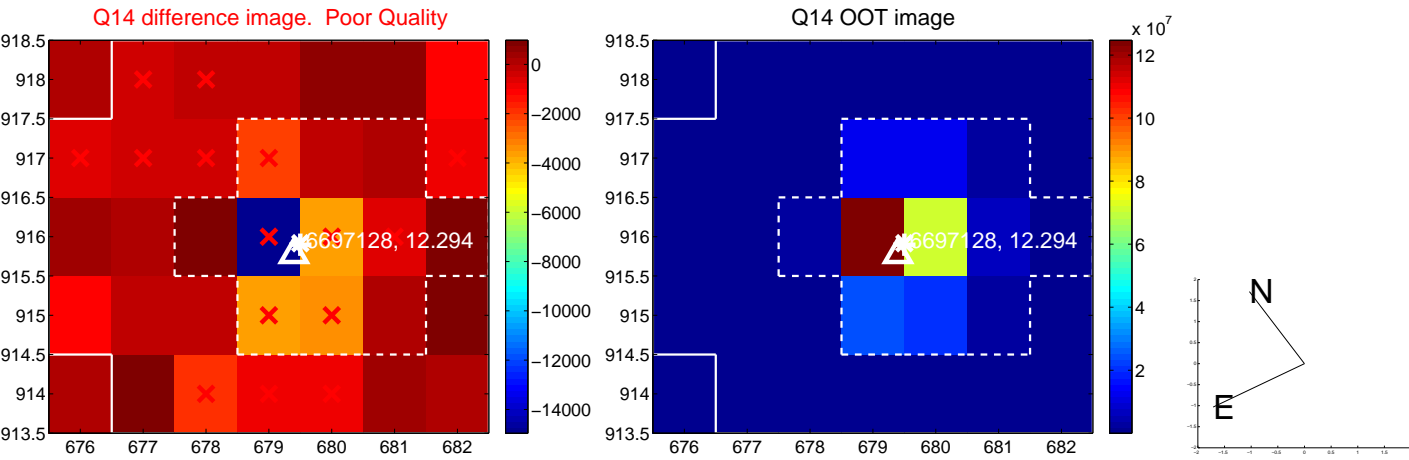
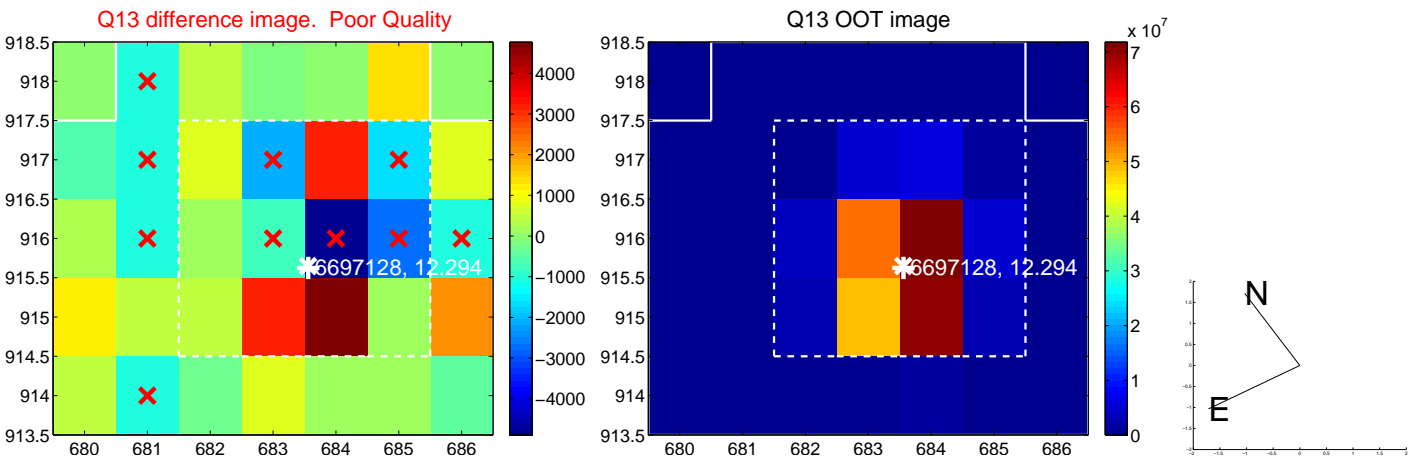
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



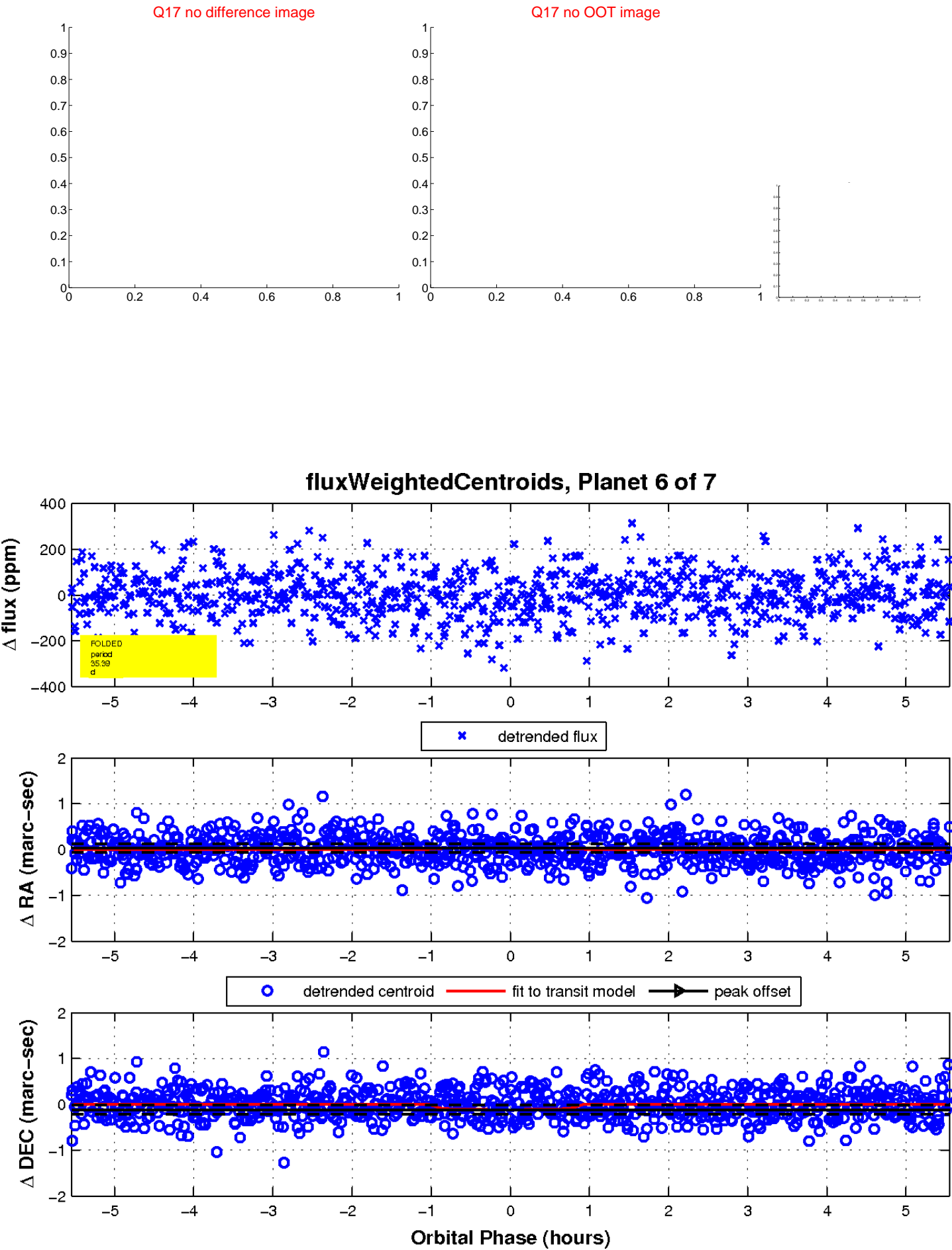
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

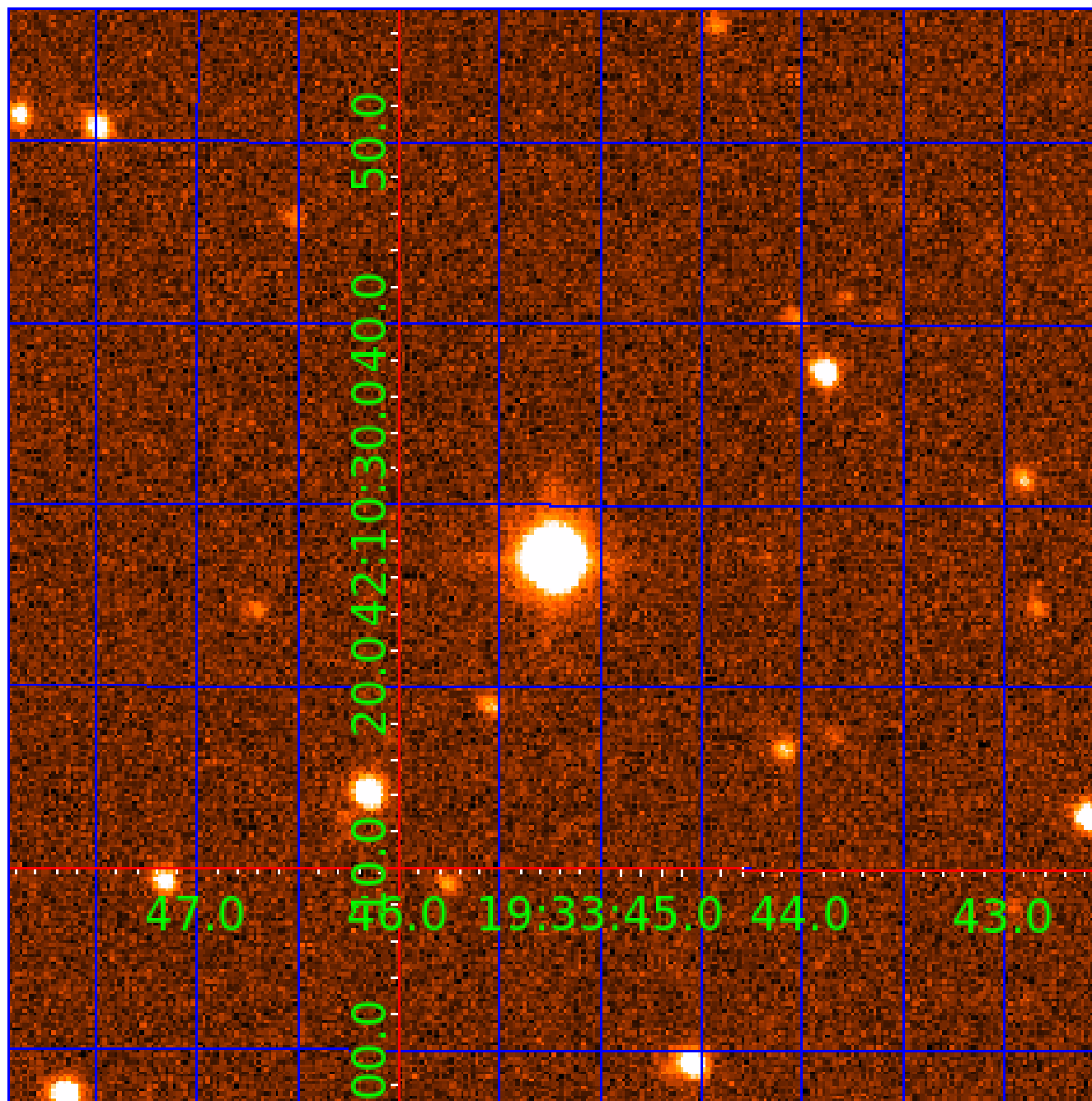


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006697128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006697128-01	OBS	No	0.660903	131.645149	4.3	4.733	9.1	4.1	1.92	7481	0.41	33827.22
006697128-02	OBS	No	20.701992	144.799762	266.2	2.580	20.5	19.6	1.92	7481	6.04	342.58
006697128-03	OBS	No	57.970822	187.017611	236.4	1.271	14.2	13.8	1.92	7481	3.05	86.80
006697128-04	OBS	No	15.823734	142.635996	289.3	2.500	11.3	-1.0	1.92	7481	3.32	490.20
006697128-05	OBS	No	24.768634	147.014173	101.4	3.001	10.6	8.6	1.92	7481	2.23	269.72
006697128-06	OBS	No	35.388195	143.804173	210.3	1.852	15.7	12.8	1.92	7481	2.83	167.61
006697128-07	OBS	No	11.215764	137.629870	159.8	1.524	13.6	13.0	1.92	7481	2.59	775.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006697128-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS
006697128-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
006697128-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006697128-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS—HALO_GHOST
006697128-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006697128-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
006697128-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

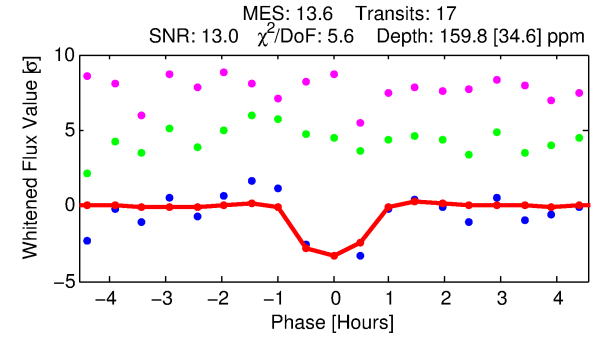
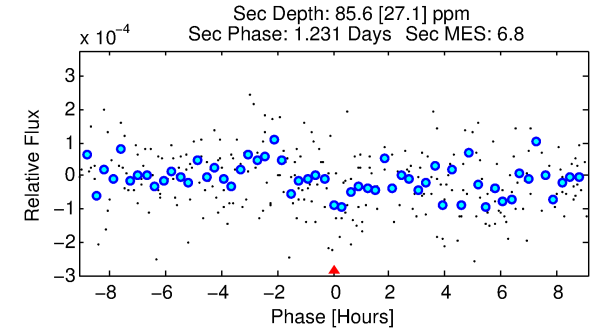
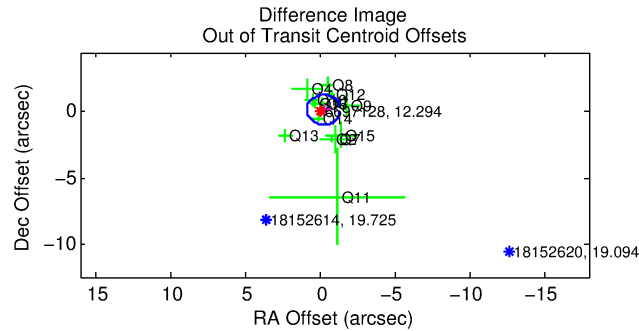
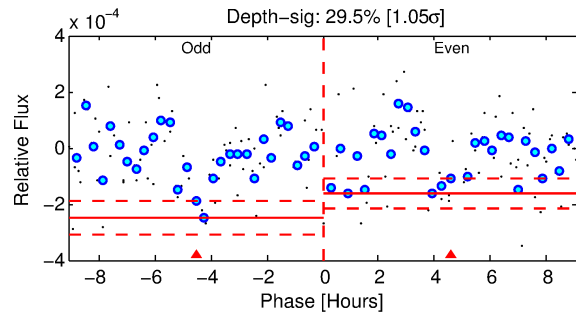
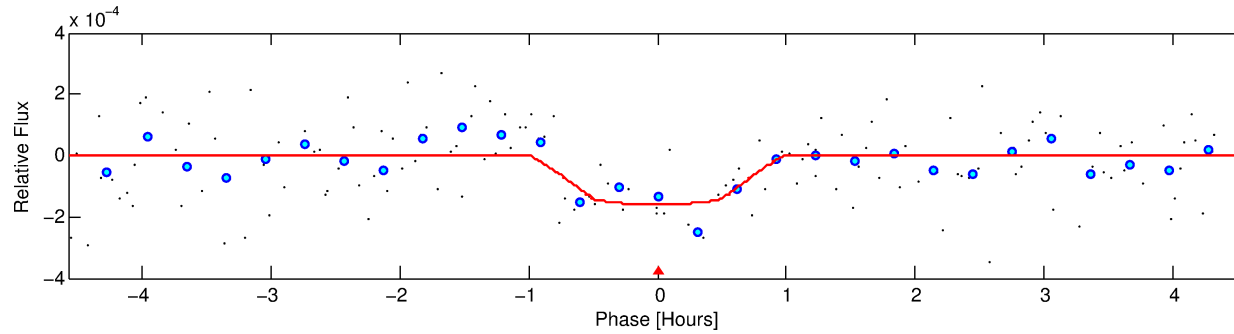
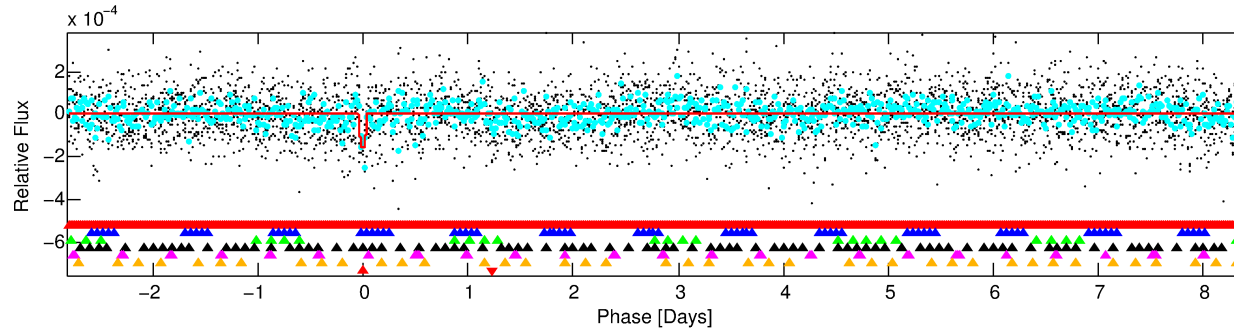
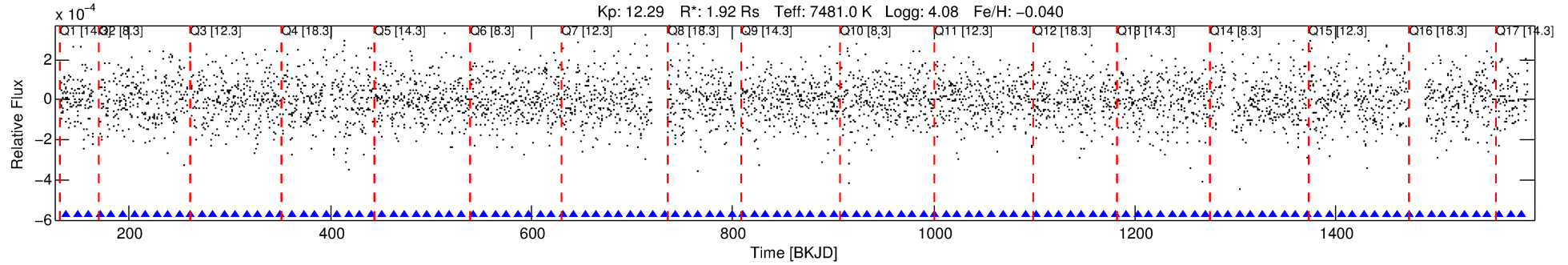
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006697128-07

No Significant Match Found

DV One-Page Summary

KIC: 6697128 Candidate: 7 of 7 Period: 11.216 d



DV Fit Results:

Period = 11.21576 [0.00010] d
Epoch = 137.6299 [0.0077] BKJD
Rp/R* = 0.0124 [0.0094]
a/R* = 42.47 [204.78]
b = 0.67 [3.94]
Seff = 775.67 [190.90]
Teq = 1346 [83] K
Rp = 2.59 [2.04] Re
a = 0.1154 [0.0191] AU
Ag = 93.24 [146.80] [0.63 σ]
Teffp = 6465 [2516] K [2.03 σ]

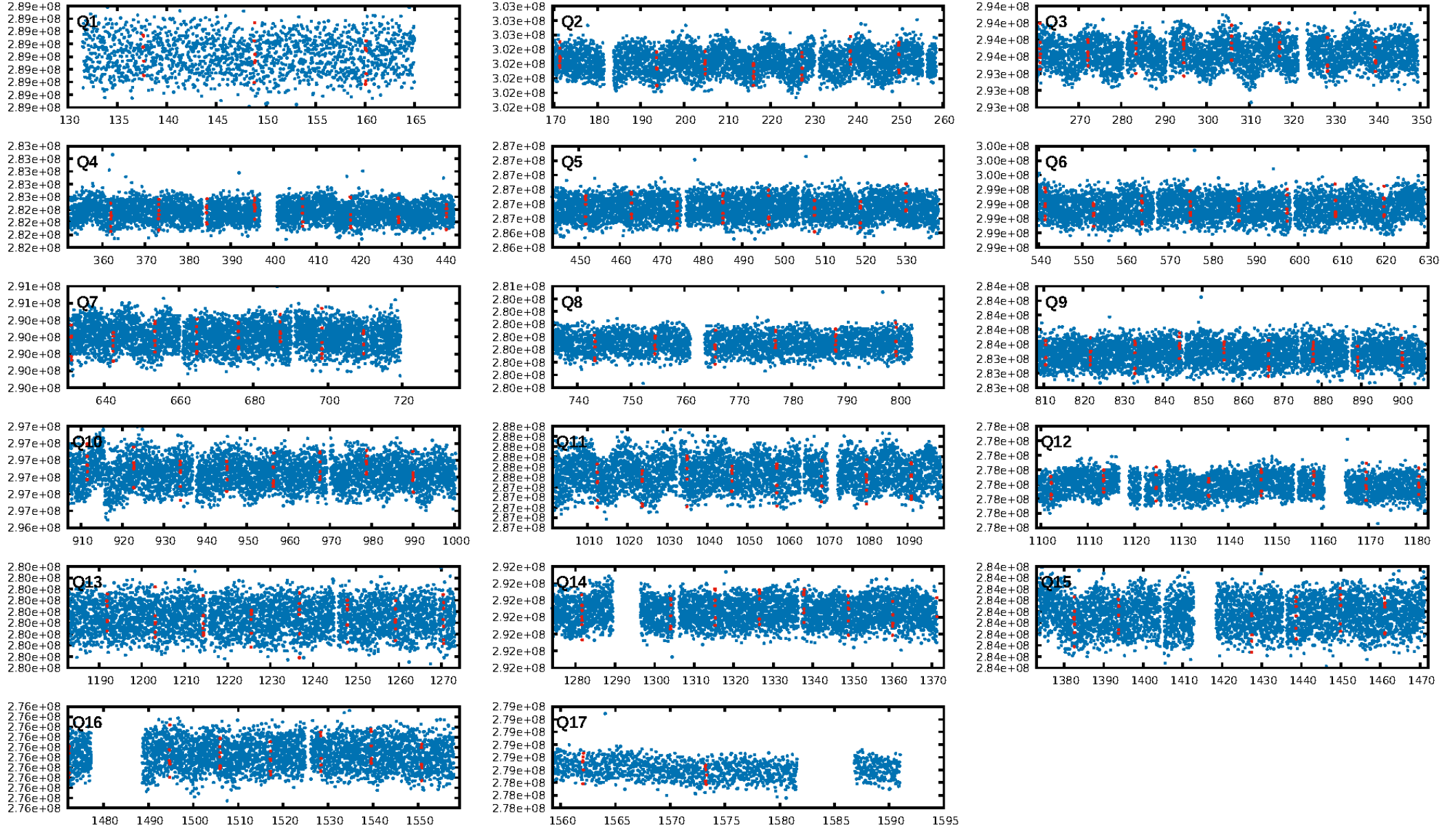
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.94 σ]
LongPeriod-sig: 100.0% [37.77 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 6.6%
Bootstrap-pfa: 2.05e-09
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: 0.9026
Centroid-sig: 33.8%
Centroid-so: 0.351 arcsec [1.05 σ]
OotOffset-rm: 0.309 arcsec [0.83 σ]
KicOffset-rm: 0.245 arcsec [0.65 σ]
OotOffset-st: 4/3/3/3 [13]
KicOffset-st: 4/3/3/3 [13]
DiffImageQuality-fgm: 0.08 [1/13]
DiffImageOverlap-fno: 0.00 [0/17]

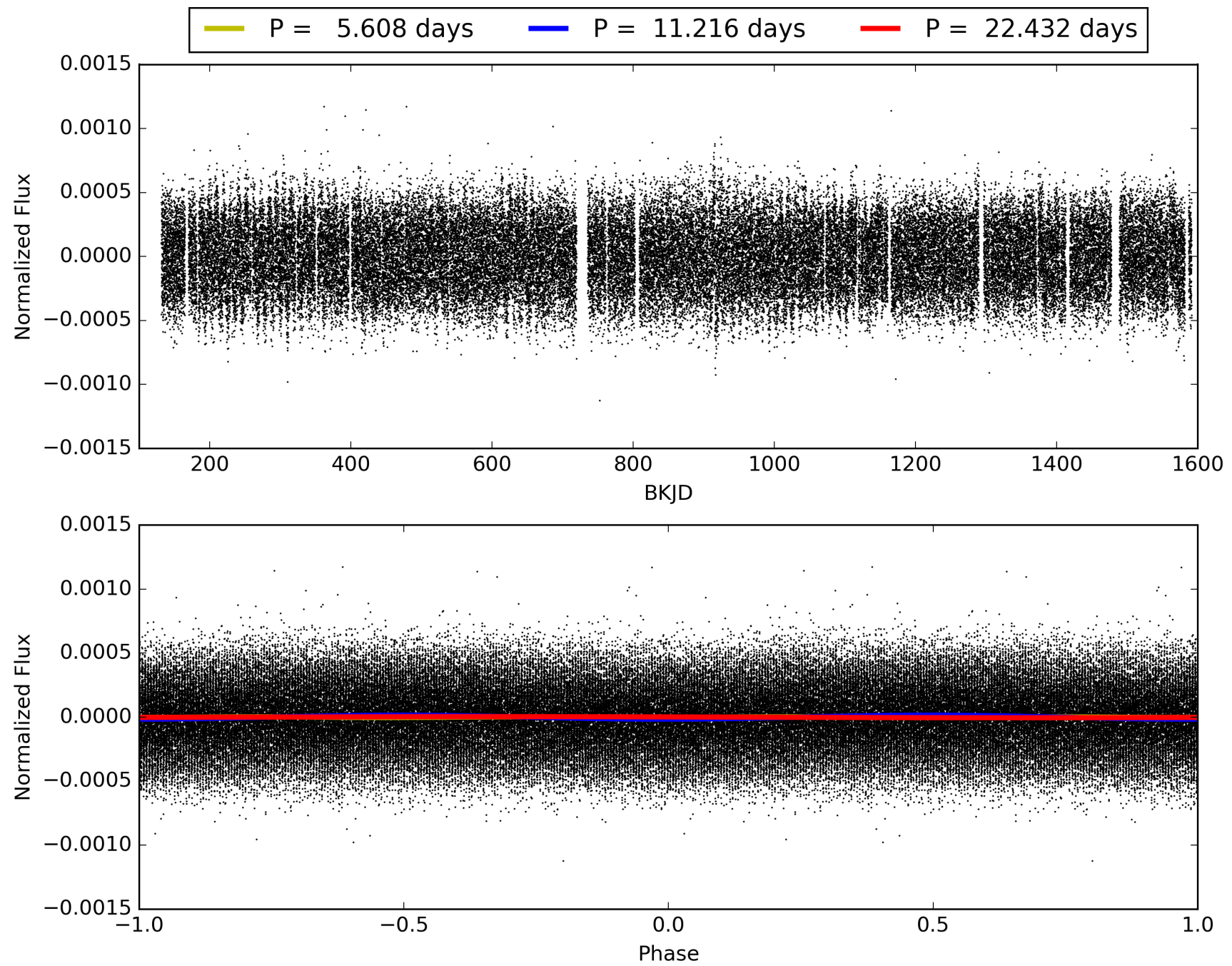
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:35:09 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006697128-07, PDC Light Curves

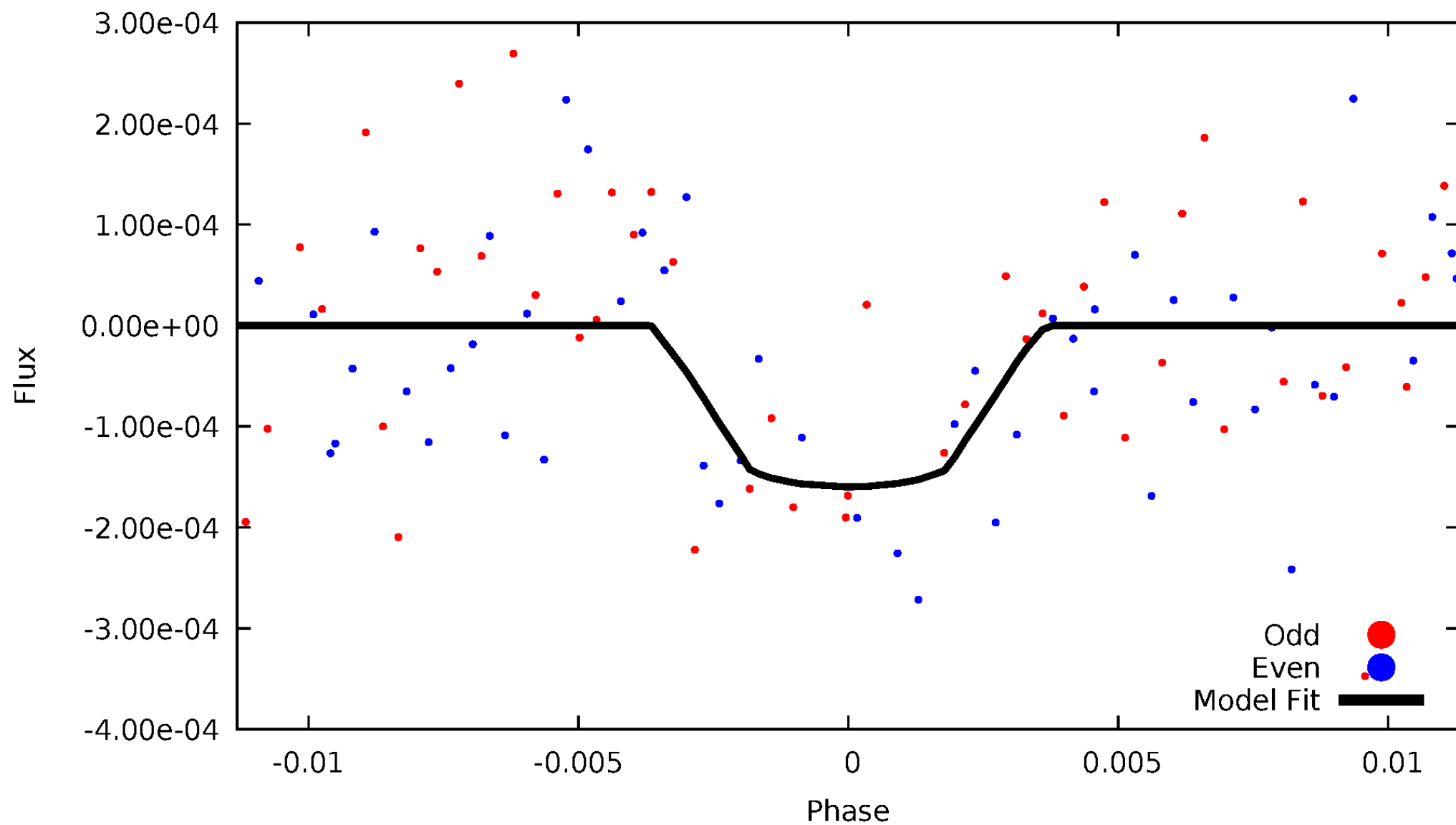


TCE 006697128-07



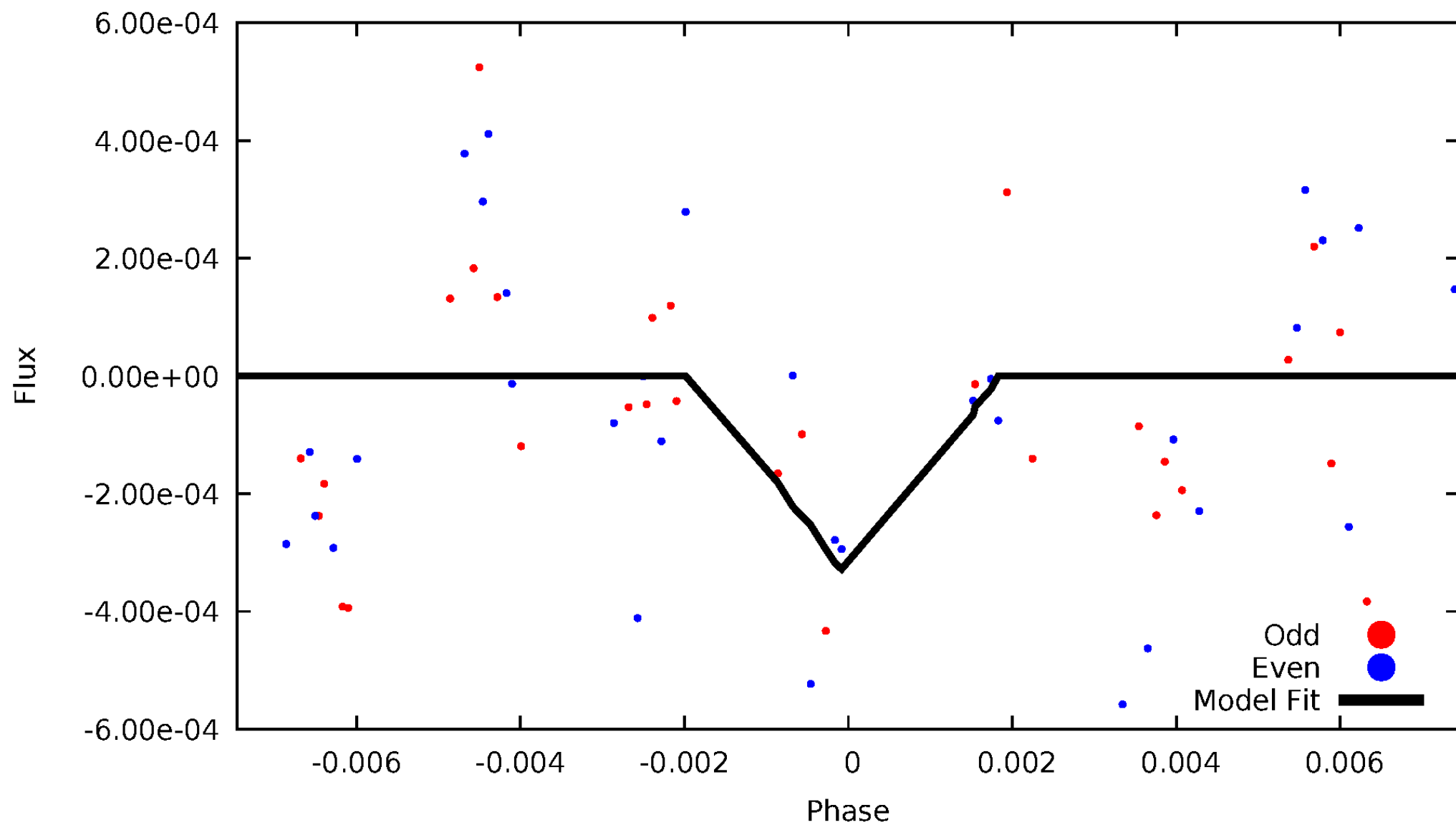
DV Odd/Even

TCE 006697128-07



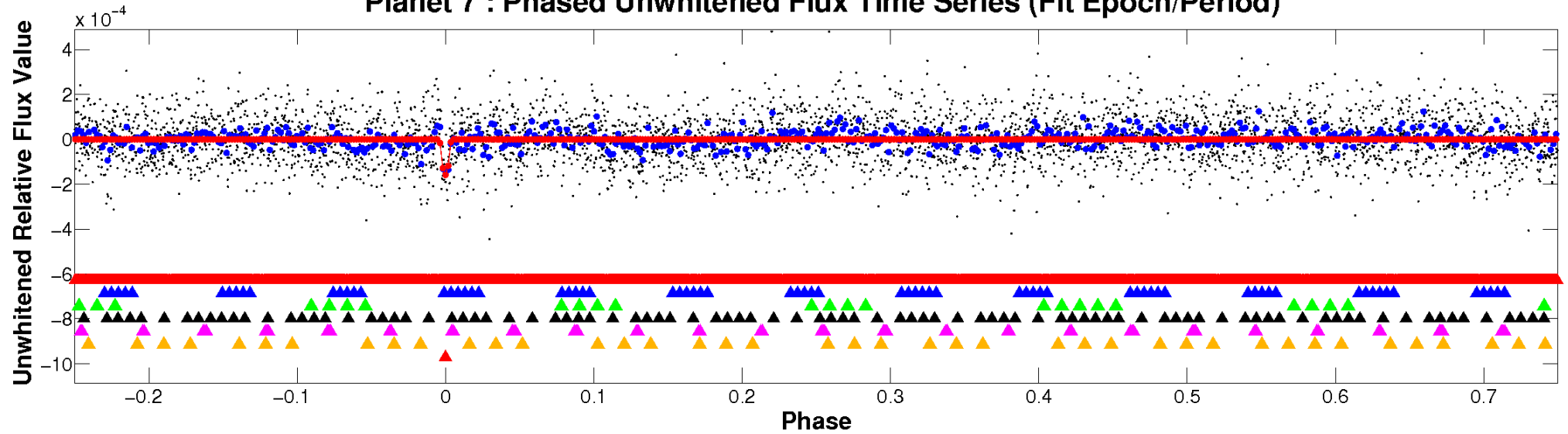
ALT Odd/Even

TCE 006697128-07

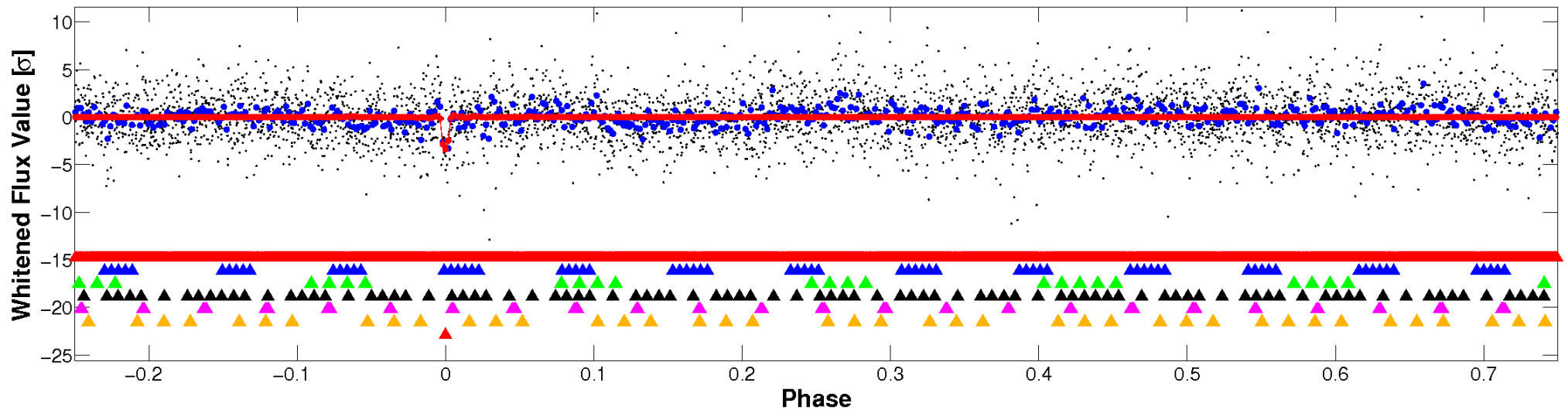


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

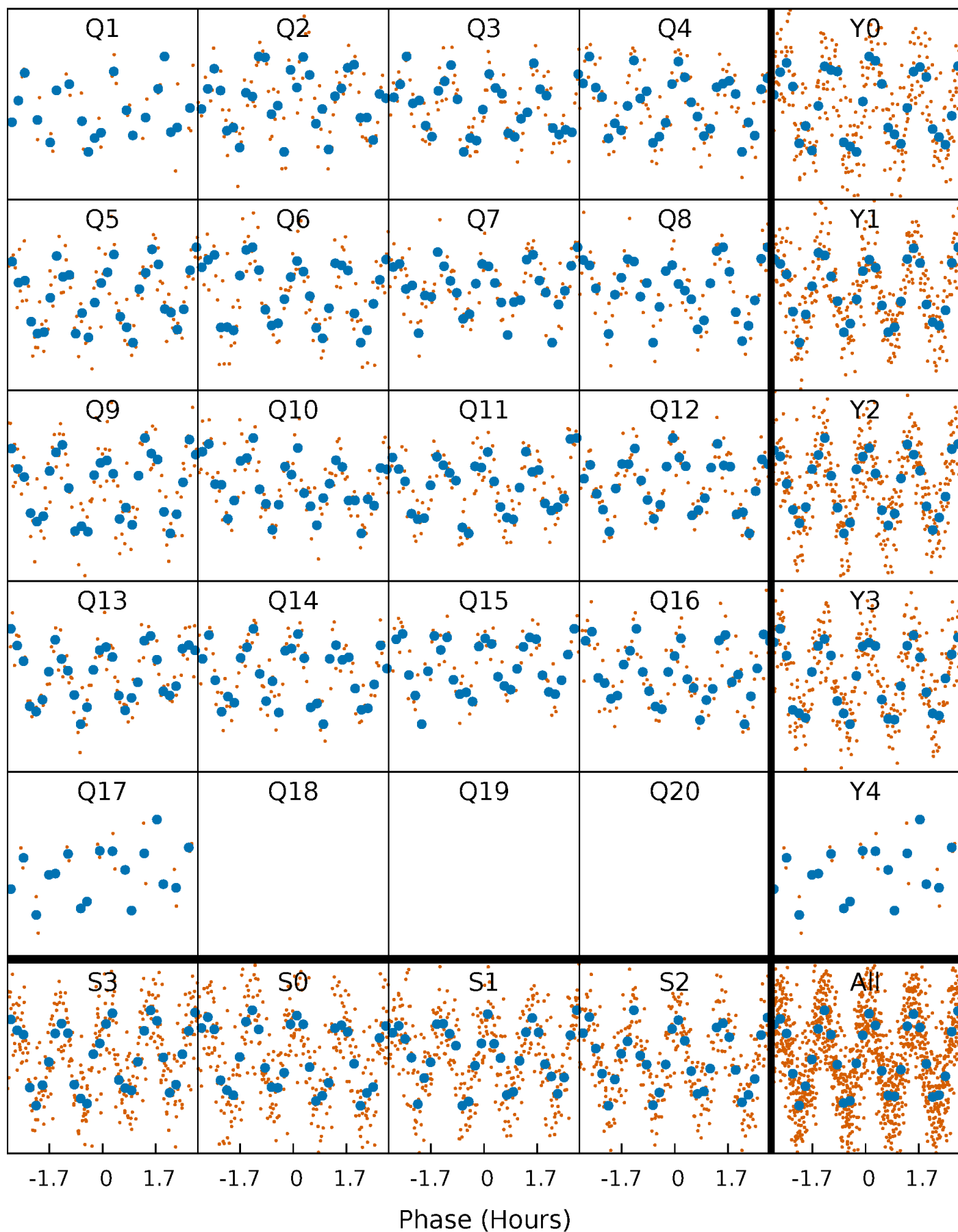


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



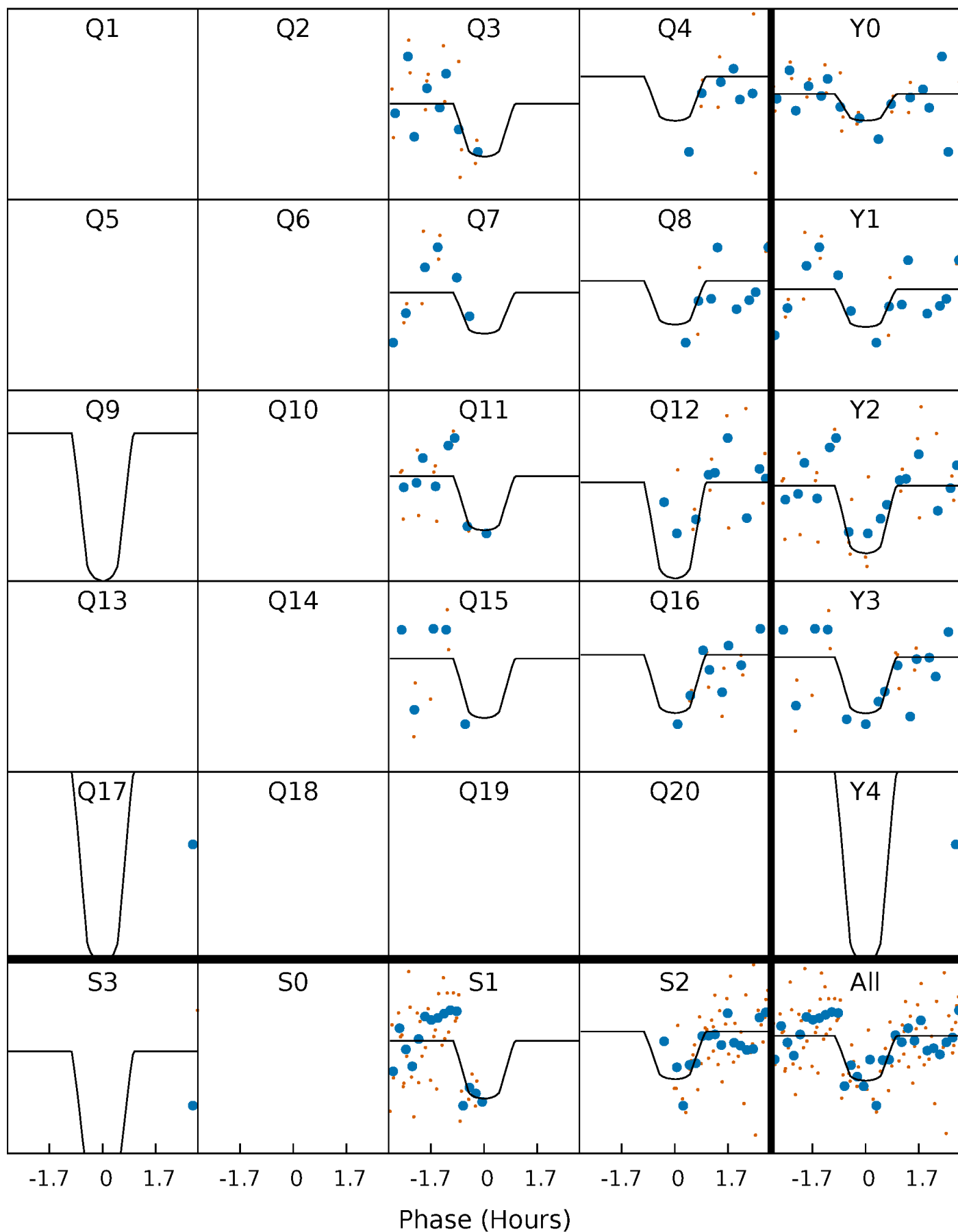
PDC Quarter-Phased Transit Curves

TCE 006697128-07 P= 11.215764 Days $T_0=137.629870$ (BKJD)



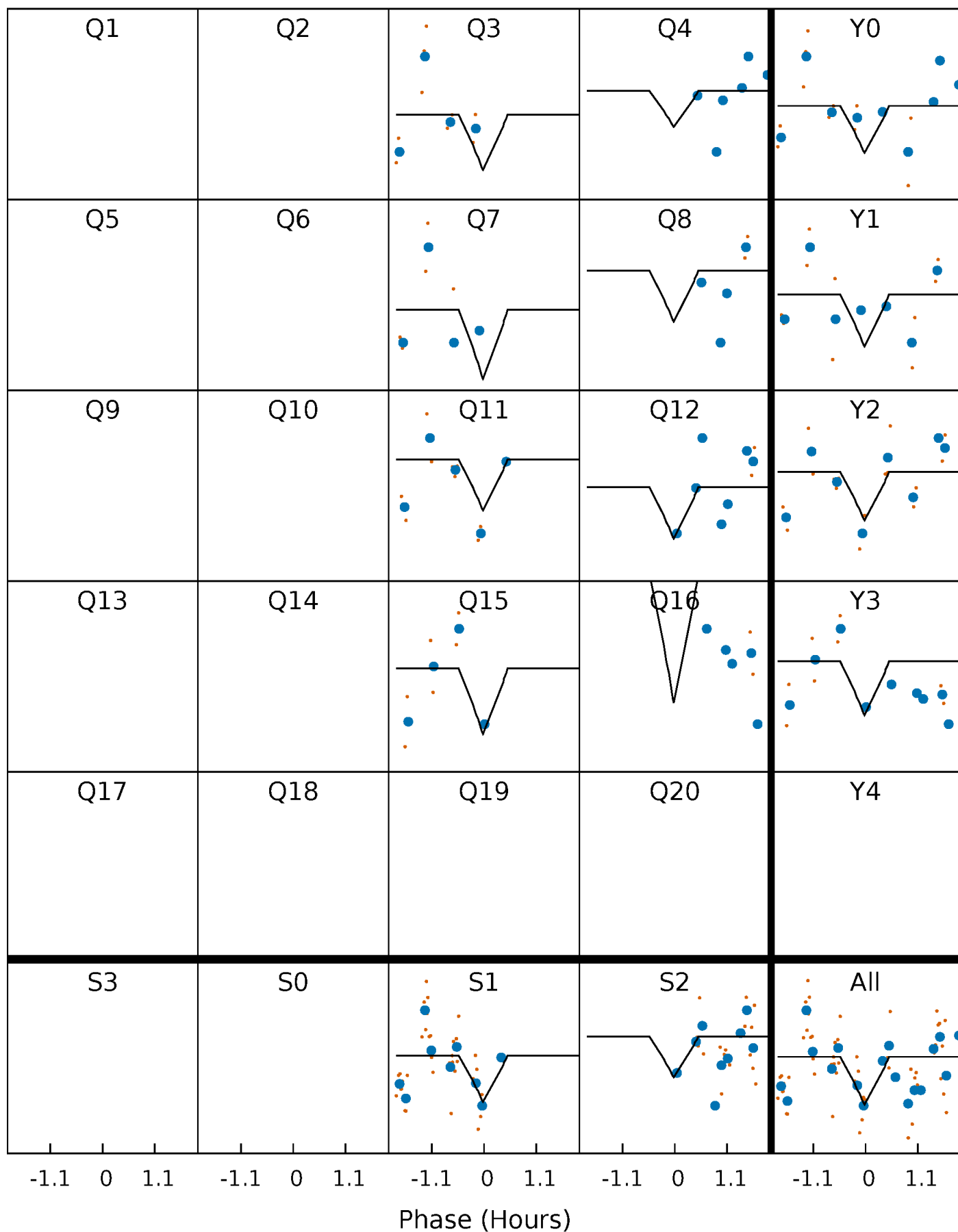
DV Quarter-Phased Transit Curves

TCE 006697128-07 P= 11.215764 Days $T_0=137.629870$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

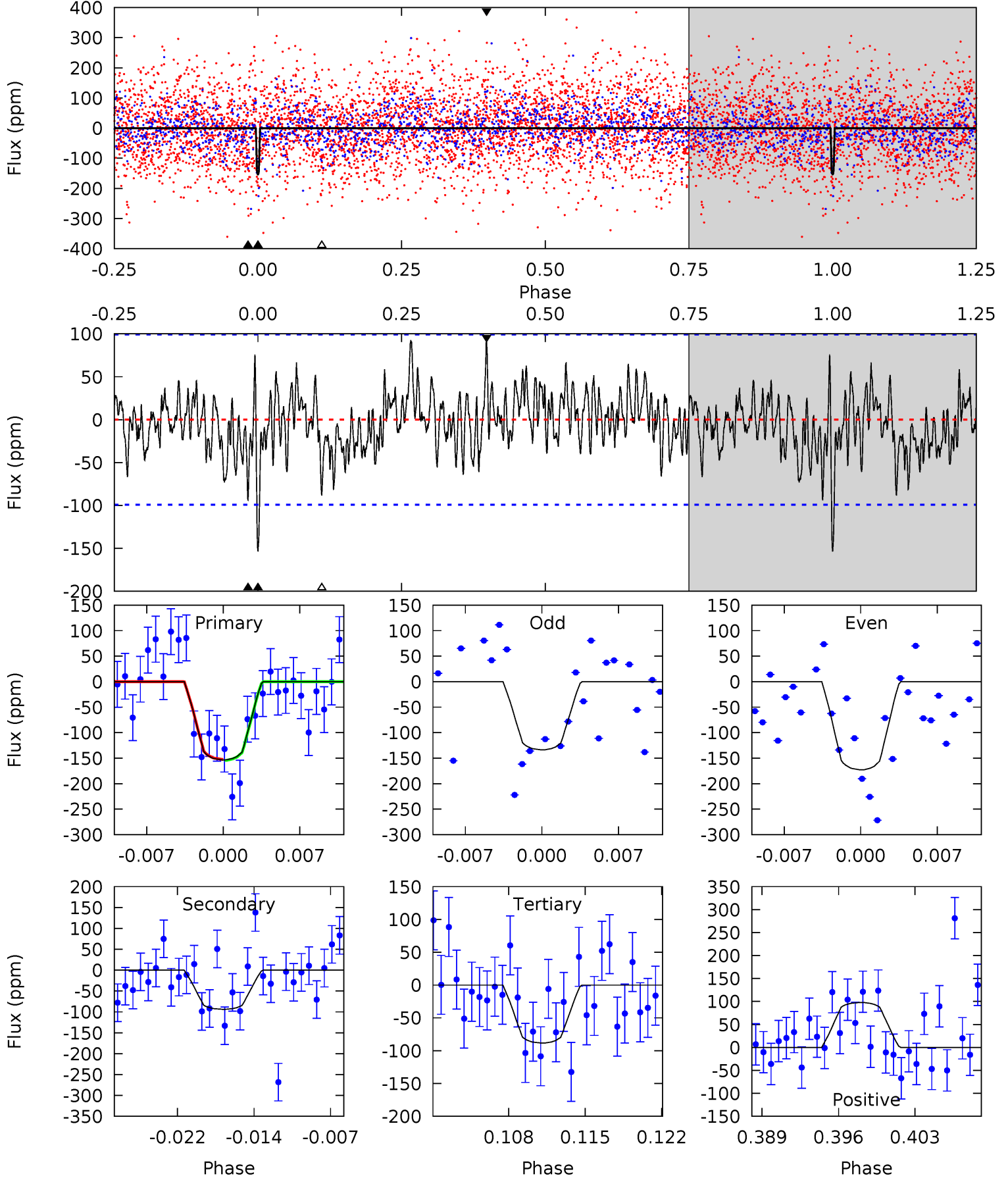
TCE 006697128-07 P= 11.215534 Days $T_0=137.631966$ (BKJD)



DV Model-Shift Uniqueness Test

006697128-07, P = 11.215764 Days, E = 126.414106 Days

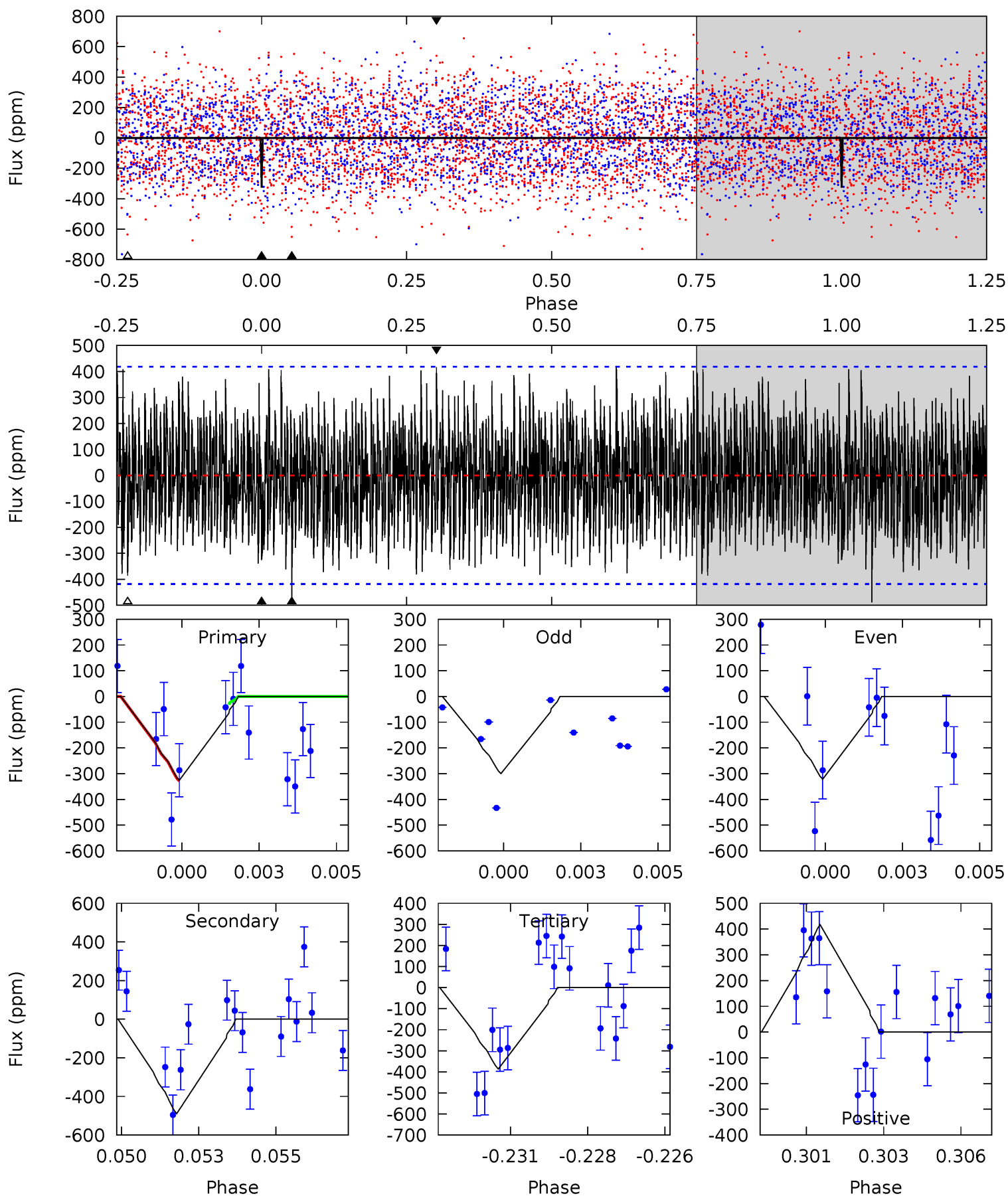
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.88	4.82	4.54	5.02	5.09	2.69	1.48	3.34	2.85	0.28	-0.20	1.03	1.00	0.39	0.05



Alt Model-Shift Uniqueness Test

006697128-07, P = 11.215534 Days, E = 126.416432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.11	6.17	4.87	5.26	5.29	3.02	1.97	-0.76	-1.15	1.30	0.91	0.14	1.00	0.46	1.81



Stellar Parameters For KIC 006697128

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7481^{+74}_{-89}	$4.084^{+0.099}_{-0.132}$	$-0.040^{+0.100}_{-0.200}$	$1.919^{+0.378}_{-0.283}$	$1.628^{+0.132}_{-0.132}$	$0.325^{+0.145}_{-0.118}$
	+1%/-1%	+2%/-3%	+250%/-500%	+20%/-15%	+8%/-8%	+45%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006697128-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-94 ± 19	$2.88^{+1.83}_{-1.81}$	1888^{+91}_{-73}	6172^{+5880}_{-1268}	81^{+508}_{-51}
Alt.	-489 ± 79	$4.06^{+2.03}_{-1.79}$	1880^{+98}_{-71}	8171^{+4387}_{-1657}	220^{+493}_{-125}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

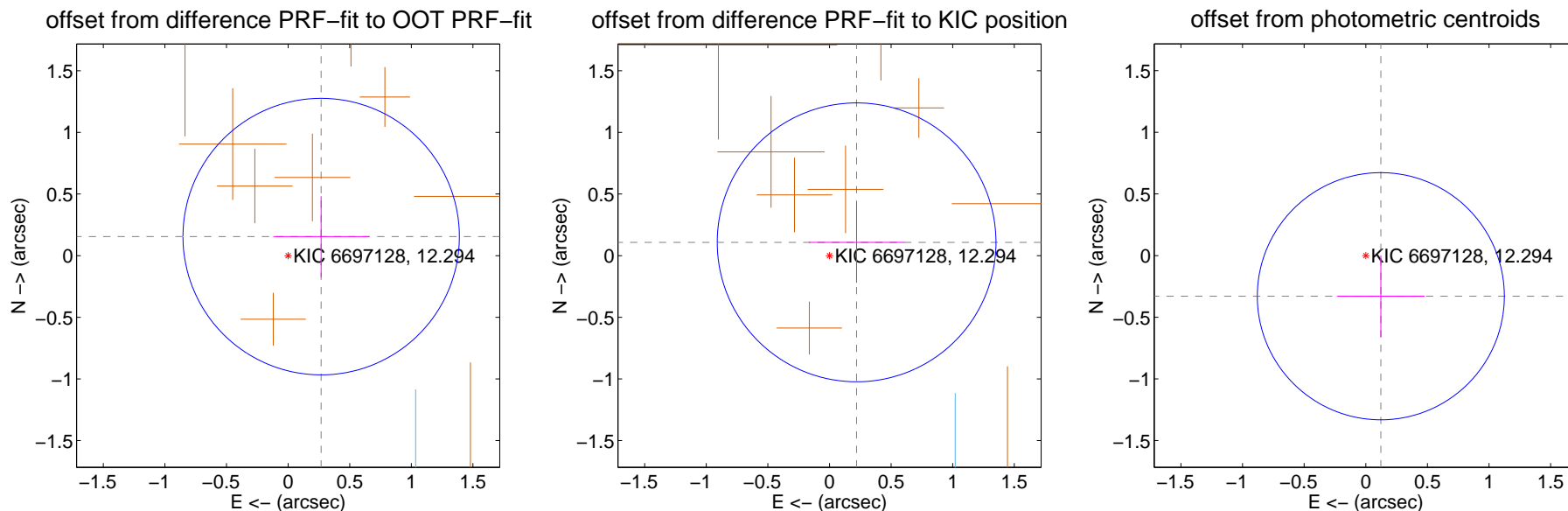
DV Centroid Data

Supplemental centroid analysis for 006697128-07. Kepler magnitude: 12.29. Transit SNR 13.00

There are 1 quarters with good PRF difference image offsets

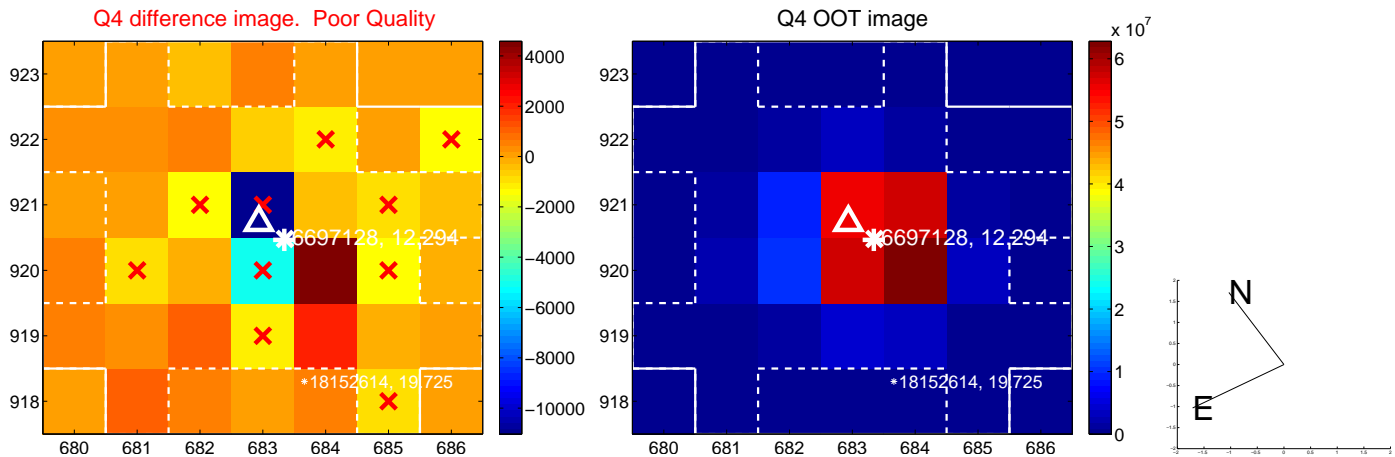
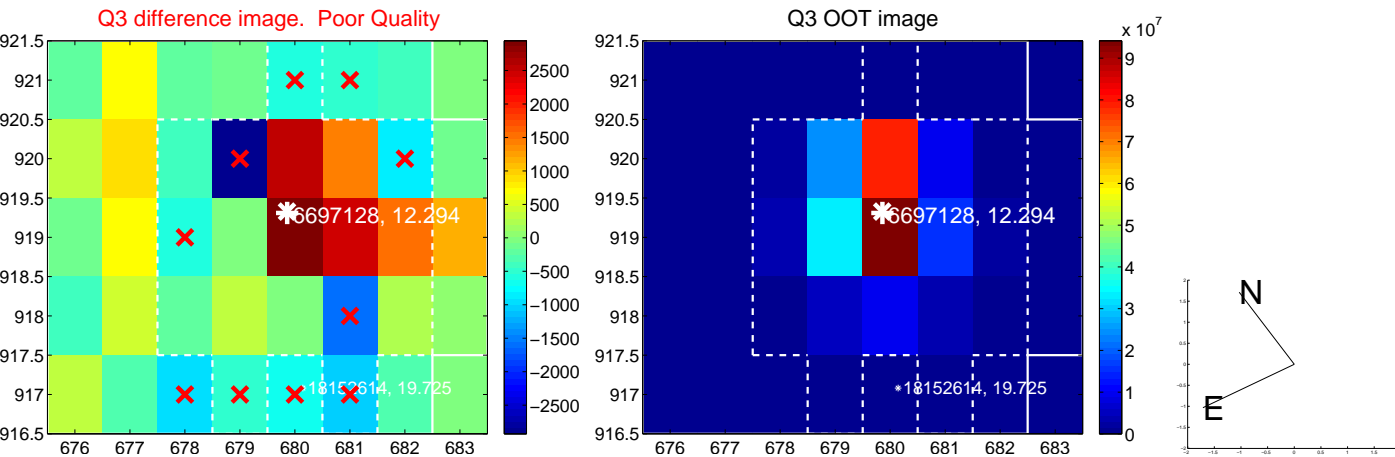
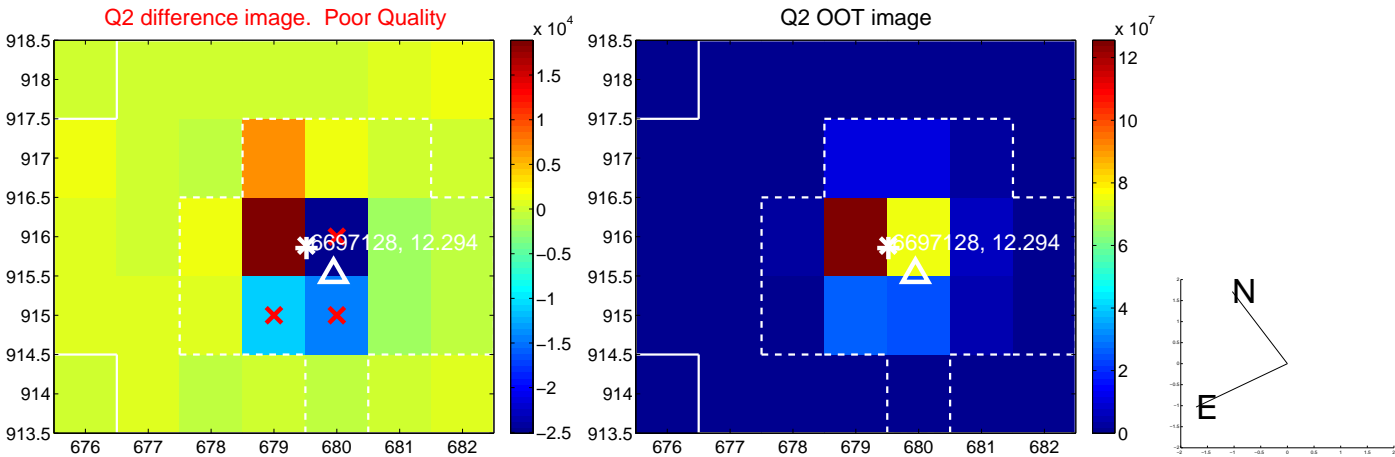
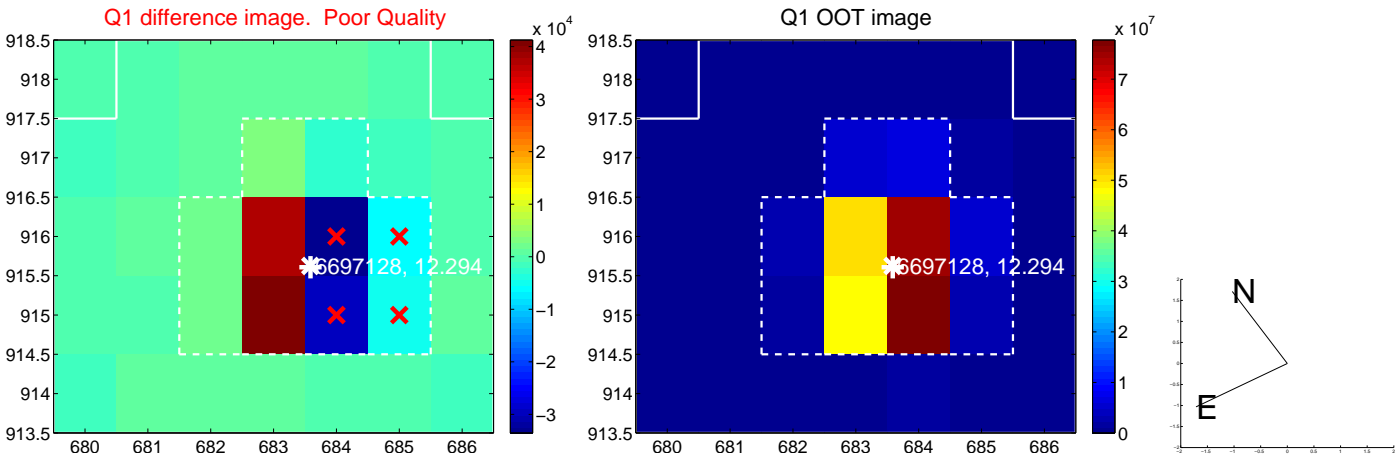
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.309 ± 0.374	0.83	-0.268 ± 0.388	0.155 ± 0.328
PRF-fit source offset from KIC position	0.245 ± 0.377	0.65	-0.220 ± 0.388	0.108 ± 0.328
photometric centroid source offset	0.35 ± 0.33	1.05	-0.12 ± 0.36	-0.33 ± 0.33

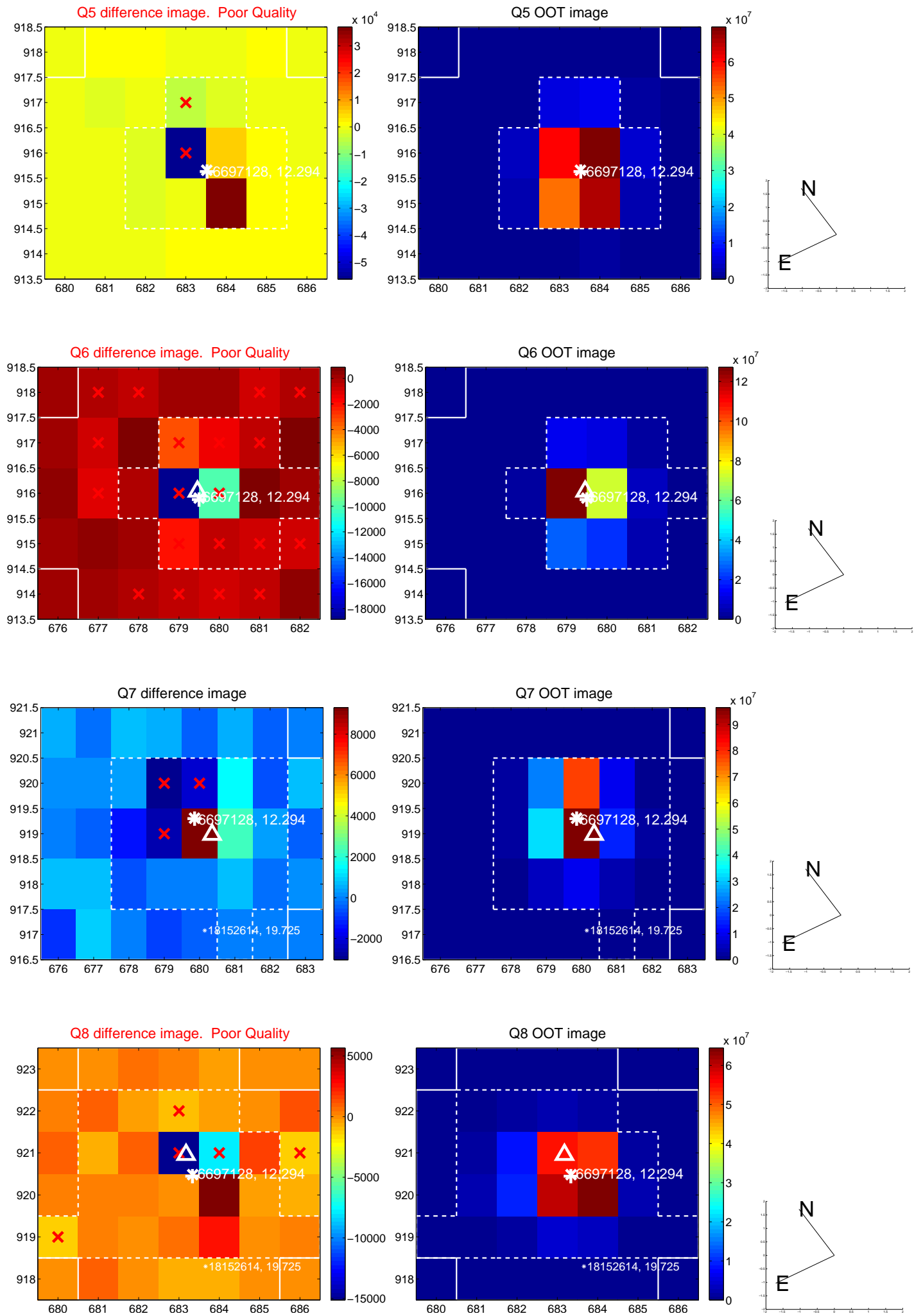


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

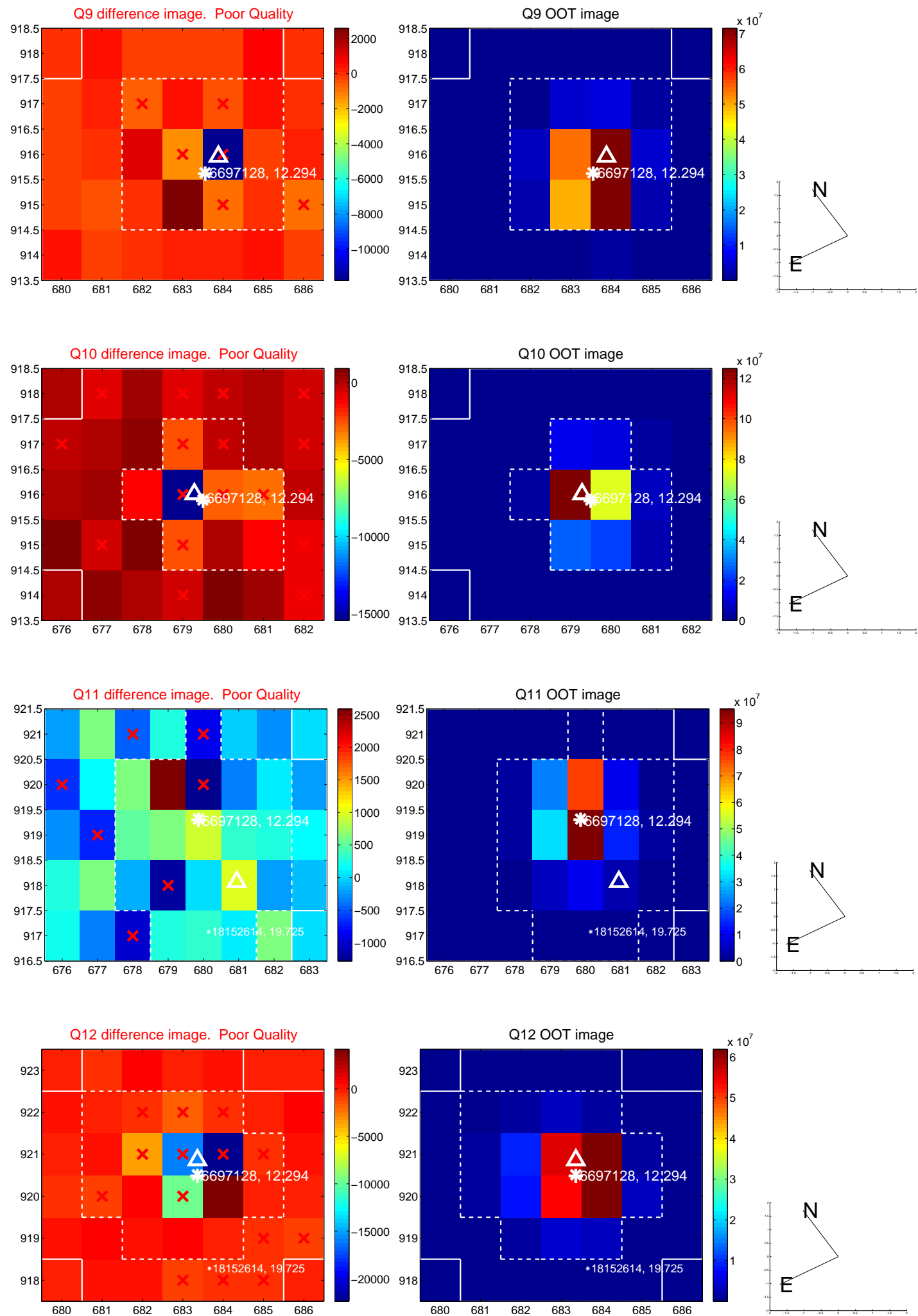
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



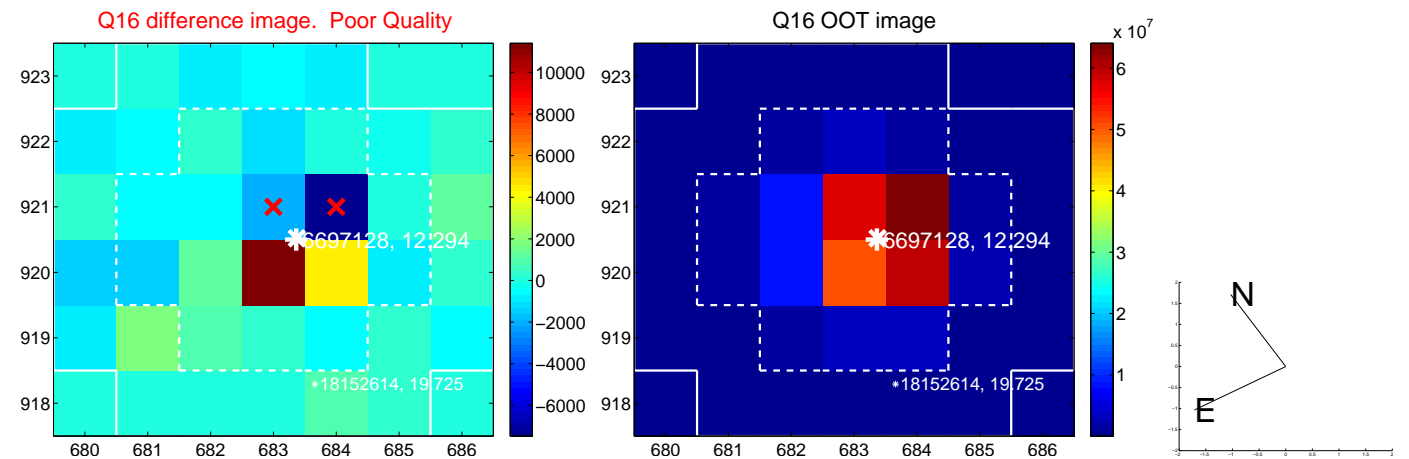
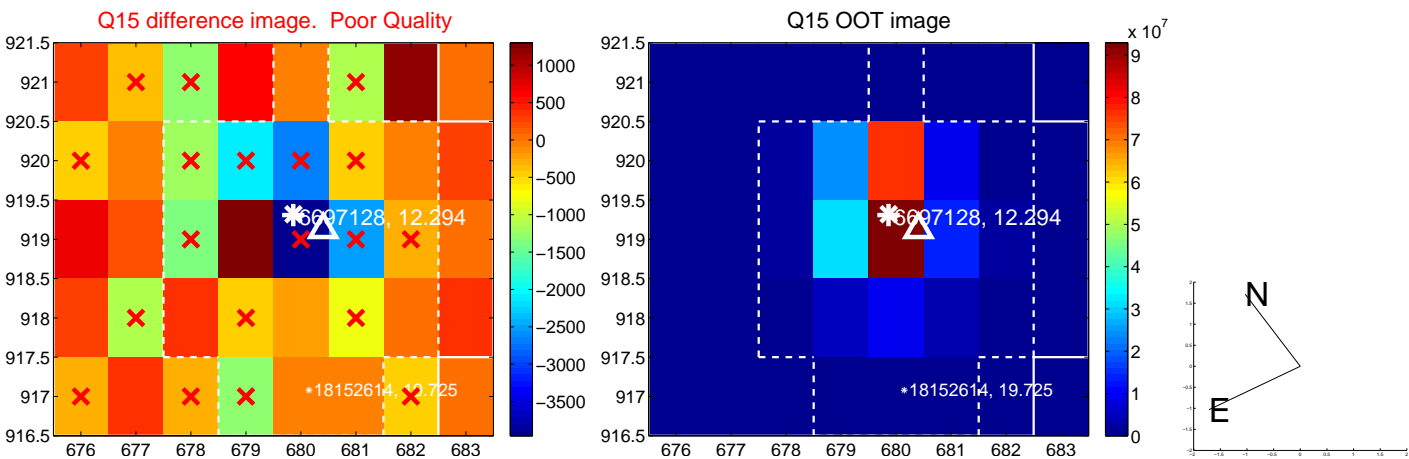
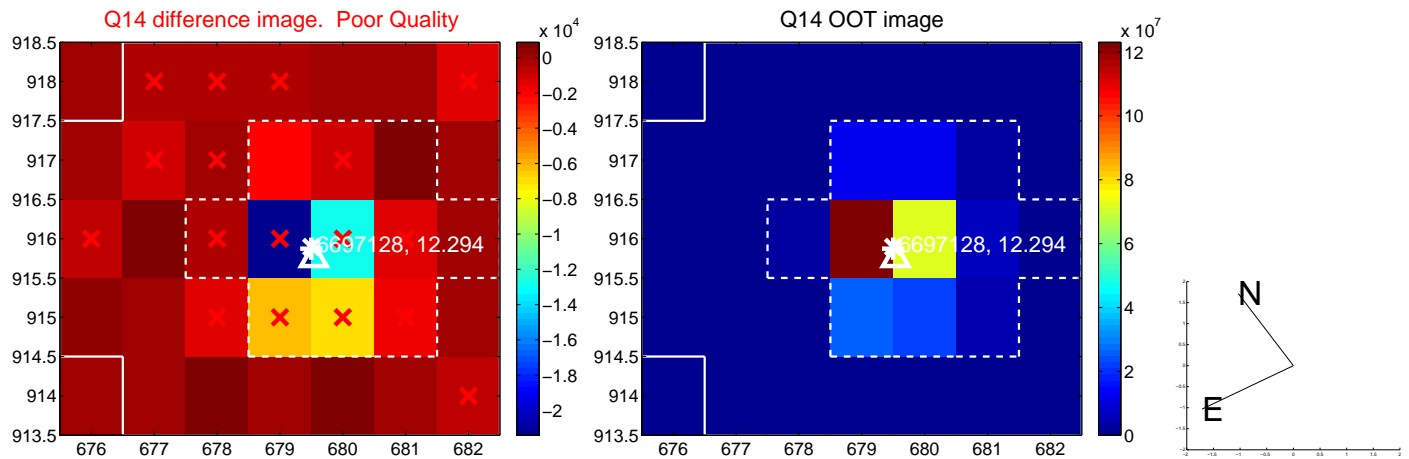
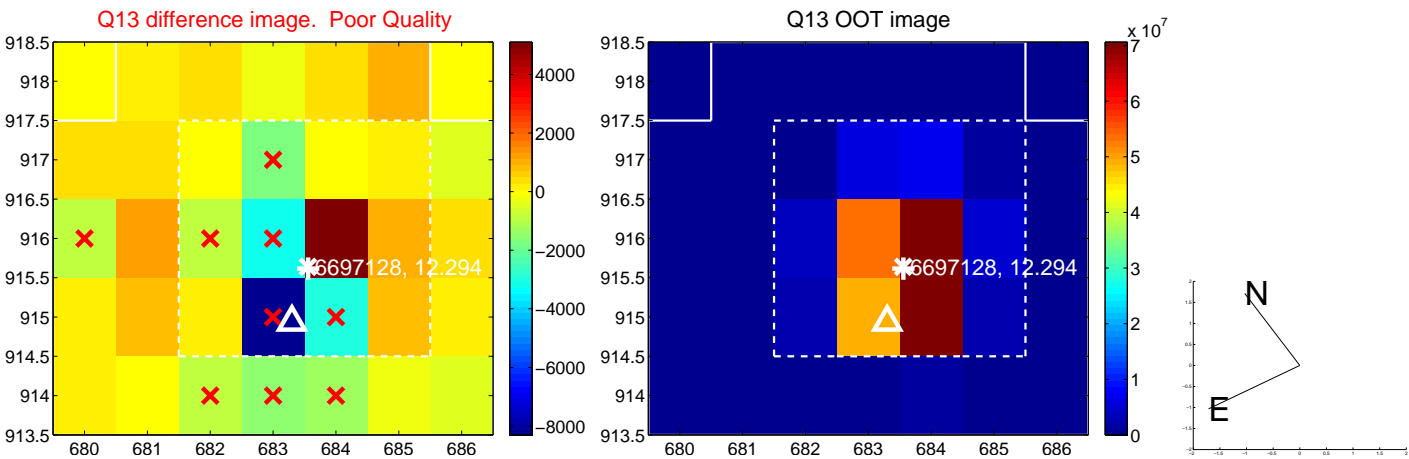
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



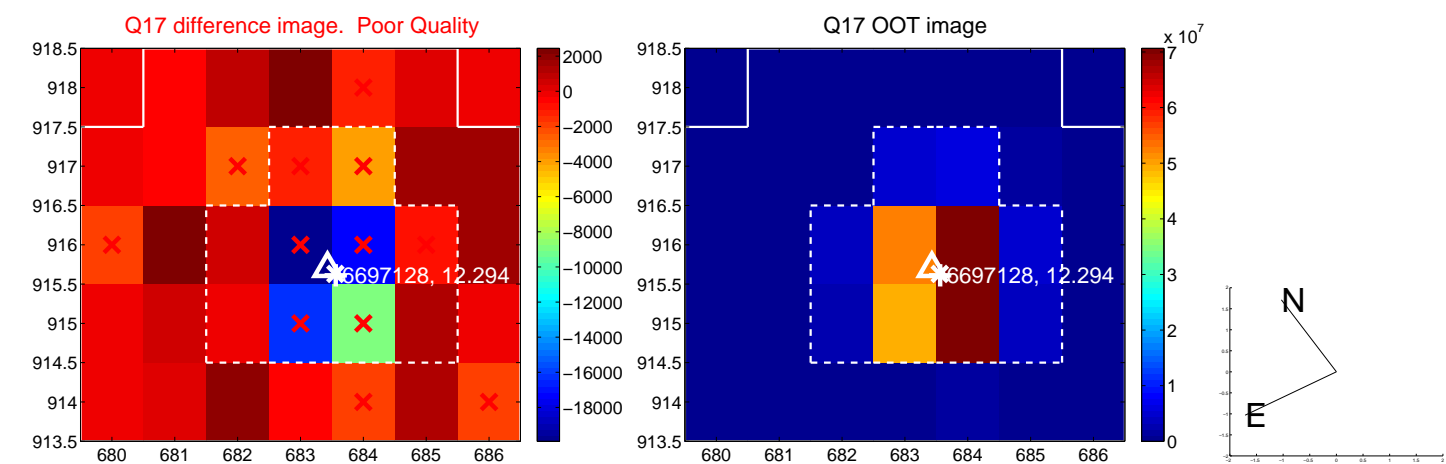
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



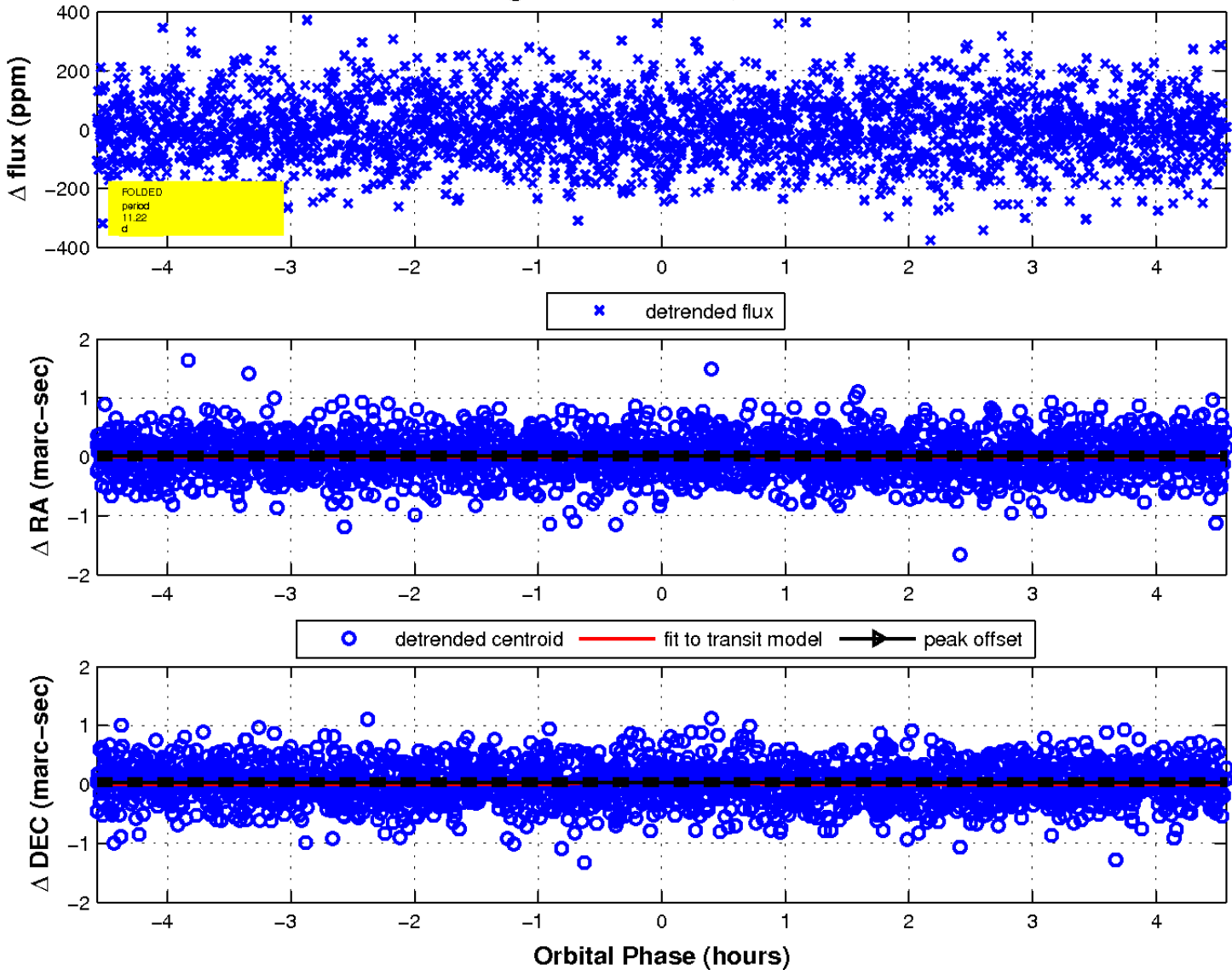
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 7 of 7



UKIRT Image

Declination

